S/M No. : TCN083BEF0

Service Manual

TV / VCR Cmobination

CHASSIS : CN-083

Model : DVQ-10H1FCN
(DVQ-9H1FC)

ITEMS / MODEL		DVQ-10H1FCN (DVQ-9H1FC)	REMARK
TV SECTION	STANDARD	NTSC-M	
	TUNING SYSTEM	Frequency Synthesizer(FS) Tuning System	
	TUNING RANGE	VHF : 2 - 13(12) UHF : 14 -69(56) CATV : 1-125(125)	
	ANTENNA INPUT IMPEDENCE	75 ohm Unbalanced	
	AUXILIARY INPUT TERMINAL	Front : Video, Audio	
VIDEO SECTION	FORMAT	VHS NTSC Standard	
	VCR SYSTEM	Rotary 2-Head Helical Scanning Monaural System	
	AUDIO RECORDING SYSTEM	Monaural	
	TAPE SPEED	SP:33.35mm/sec; EP:11.12mm/sec LP:16.67mm/sec PLAY ONLY	
	INPUT	Video :1Vp-p,75 Ohm Audio :3.8dBm, over 100K Ohm	
	TIMER PROGRAMING	6 Event/1 Month	
GENERAL	POWER INPUT	AC 120V 60Hz, DC 12V	
	POWER CONSUMPTION	47W(AC 120V), 54W(DC 12V)	
	SOUND OUTPUT	1 W	
	SPEAKER	3W 8 OHM	
	OPRATING TEMPERATRE	5°C to 40°C	
	REMOTE CONTROL	R-39A02	
	SPECIAL FUNTION	3-Language OSD With CAPTION V-Chip K-50MECHA One Touch Record Repeat Play Energy Star Power (Stand-By:3W Under)	

✔ Caution

: In this Manual, some parts can be changed for improving, their performance without notice in the parts list. So, if you need the latest parts information,please refer to PPL(Parts Price List) in Service Information Center (http://svc.dwe.co.kr).

DAEWOO ELECTRONICS Corp.

http : //svc.dwe.co.kr Nov. 2002

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SAFETY INSTRUCTION

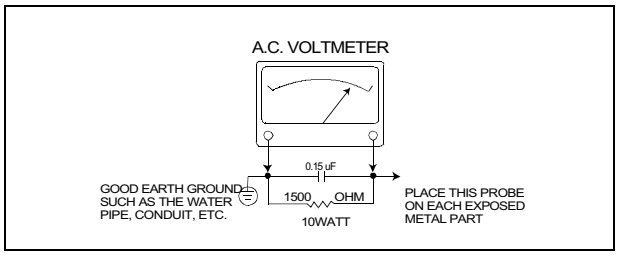
CAUTION : DO NOT ATTEMPT TO MODIFY THIS PRODUCT IN ANY WAY. NEVER PERFORM CUSTOMIZED INSTALLATIONS WITHOUT MANUFACTURER°ØS APPROVAL. UNAUTHORIZED MODIFICATIONS WILL NOT ONLY VOID THE WARRANTY, BUT MAY LEAD TO YOUR BEING LIABLE FOR ANT RESULTING PROPERTY DAMAGE OR USER INJURY.
SERVICE WORK SHOULD BE PERFORMED ONLY AFTER YOU ARE THOROUGHLY FAMILIAR WITH ALL OF THE FOLLOWING SAFETY CHECKS AND SERVICING GUIDELINES. TO DO OTHERWISE, INCREASES THE RISK OF POTENTIAL HAZARDS AND INJURY TO THE USER.
WHILE SERVICING, USE AN ISOLATION TRANSFORMER FOR PROTECTION FROM A.C. LINE SHOCK.

SAFETY CHECKS

AFTER THE ORIGINAL SERVICE PROBLEM HAS BEEN CORRECTED, A CHECK SHOULD BE MADE OF THE FOLLOWING:

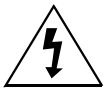
SUBJECT:FIRE & SHOCK HAZARD

1. BE SURE THAT ALL COMPONENTS ARE POSITIONED IN SUCH A WAY AS TO AVOID POSSIBILITY OF ADJACENT COMPONENT SHORTS. THIS IS ESPECIALLY IMPORTANT ON THOSE MODULES WHICH ARE TRANSPORTED TO AND FROM THE REPAIR SHOP.
2. NEVER RELEASE A REPAIR UNLESS ALL PROTECTIVE DEVICES SUCH AS INSULATORS, BARRIERS, COVERS, SHIELDS, STRAIN RELIEFS, POWER SUPPLY CORDS, AND OTHER HARDWARE HAVE BEEN REINSTALLED PER ORIGINAL DESIGN. BE SURE, THAT THE SAFETY PURPOSE OF THE POLARIZED LINE PLUG HAS NOT BEEN DEFEATED.
3. SOLDERING MUST BE INSPECTED TO DISCOVER POSSIBLE COLD SOLDER JOINTS, SOLDER SPLASHES OF SHARP SOLDER POINTS. BE CERTAIN TO REMOVE ALL LOOSE FOREIGN PARTICLES.
4. CHECK FOR PHYSICAL EVIDENCE OF DAMAGE OR DETERIORATION TO PARTS AND COMPONENTS, FOR FRAYED LEADS, DAMAGED INSULATION (INCLUDING A.C. CORD), AND REPLACE IF NECESSARY. FOLLOW ORIGINAL LAYOUT, LEAD LENGTH AND DRESS.
5. NO LEAD OR COMPONENT SHOULD TOUCH A RECEIVING TUBE OR A RESISTOR RATED AT 1 WATT OR MORE. LEAD TENSION AROUND PROTRUDING METAL SURFACES MUST BE AVOIDED.
6. ALL CRITICAL COMPONENTS SUCH AS FUSES, FLAMEPROOF RESISTOR, CAPACITORS, ETC. MUST BE REPLACED WITH EXACT FACTORY TYPES. DO NOT USE REPLACEMENT COMPONENTS OTHER THAN THOSE SPECIFIED OR MAKE UNRECOMMENDED CIRCUIT MODIFICATIONS.
7. AFTER RE-ASSEMBLY OF THE STE ALWAYS PERFORM AN A.C. LEAKAGE TEST ON ALL EXPOSED METALLIC PARTS OF THE CABINET. (THE CHANNEL SELECTOR KNOB, ANTENNA TERMINALS, HANDLE AND SCREWS) TO BE SURE THE SET IS SAFE TO OPERATE WITHOUT DANGER OF ELECTRICAL SHOCK. DO NOT USE A LINE ISOLATION TRANSFORMER DURING THIS TEST USE AN A.C. VOLTMETER, HAVING 5000 OHMS PER VOLT OR MORE SENSITIVITY, IN THE FOLLOWING MANNER : CONNECT A 1500 OHM 10 WATT RESISTOR, PARALLELED BY A .15 MFD. 150V A.C. TYPE CAPACITOR BETWEEN A KNOWN GOOD EARTH GROUND (WATER POPE, CONDUIT, ETC.) AND THE EXPOSED METALLIC PARTS, ONE AT A TIME. MEASURE THE A.C. VOLTAGE ACROSS THE COMBINATION OF 1500 OHM RESISTOR AND .15 MFD CAPACITOR. REVERSE THE A.C. PLUG AND REPEAT A.C. VOLTAGE MEASUREMENTS FOR EACH EXPOSED METALLIC PART. VOLTAGE MEASURED MUST NOT EXCEED .75 VOLTS R.M.S THIS CORRESPONDS TO 0.5 MILLIAMP A.C. NAY VALUE EXCEEDING THIS LIMIT CONSTITUTES A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED IMMEDIATELY.


A.C. VOLTMETER
0.15 uF
GOOD EARTH GROUND SUCH AS THE WATER PIPE, CONDUIT, ETC.
1500 OHM
10WATT
PLACE THIS PROBE ON EACH EXPOSED METAL PART

SUBJECT : GRAPHIC SYMBOLS

THE LIGHTNING FLASH WITH ARROWHEAD SYMBOL, WITHIN AN EQUILATERAL TRIANGLE, IS INTENDED TO ALERT THE SERVICE PERSONNEL TO THE PRESENCE OF UNINSULATED “DANGEROUS VOLTAGE” THAT MAY BE OF SUFFICIENT MAGNITUDE TO CONSTITUTE A RISK OF ELECTRIC SHOCK.



THE EXCLAMATION POINT WITHIN AN EQUILATERAL TRIANGLE IS INTENDED TO ALERT THE SERVICE PERSONNEL TO THE PRESENCE OF IMPORTANT SAFETY INFORMATION ON SERVICE LITERATURE.

SUBJECT : X-RADIATION

1. BE SURE PROCEDURES AND INSTRUCTIONS TO ALL SERVICE PERSONNEL COVER THE SUBJECT OF X-RADIATION. THE ONLY POTENTIAL SOURCE OF X-RAYS IN CURRENT T.V. RECEIVERS IS THE PICTURE TUBE. HOWEVER, THIS TUBE DOES NOT EMIT X-RAYS WHEN THE HIGH VOLTAGE IS AT THE FACTORY SPECIFIED LEVEL. THE PROPER VALUE IS GIVEN IN THE APPLICABLE SCHEMATIC. OPERATION AT HIGHER VOLTAGES MAY CAUSE A FAILURE OF THE PICTURE TUBE OR HIGH VOLTAGE SUPPLY AND, UNDER CERTAIN CIRCUMSTANCES, AMY PRODUCE RADIATION IN EXCESS OF DESIRABLE LEVELS.
2. ONLY FACTORY SPECIFIED C.R.T ANODE CONNECTORS MUST BE USED. DEGAUSSING SHIELDS ALSO SERVE AS X-RAY SHIELD IN COLOR SETS. ALWAYS RE-INSTALL THEM.
3. IT IS ESSENTIAL THAT SERVICE PERSONNEL HAVE AVAILABLE AN ACCURATE AND RELIABLE HIGH VOLTAGE METER. THE CALIBRATION OF THE METER SHOULD BE CHECKED PERIODICALLY AGAINST A REFERENCE STANDARD. SUCH AS THE ONE AVAILABLE AT YOUR DISTRIBUTOR.
4. WHEN THE HIGH VOLTAGE CIRCUITRY IS OPERATING PROPERLY THERE IS NO POSSIBILITY OF AN X-RADIATION PROBLEM. EVERY TIME A COLOR CHASSIS IS SERVICED, THE BRIGHTNESS SHOULD BE RUN UP AND DOWN WHILE MONITORING THE HIGH VOLTAGE WITH A METER TO BE CERTAIN THAT THE HIGH VOLTAGE DOES NOT EXCEED THE SPECIFIED VALUE AND THAT IT IS REGULATING CORRECTLY. WE SUGGEST THAT YOU AND YOUR SERVICE ORGANIZATION REVIEW TEST PROCEDURES SO THAT VOLTAGE REGULATION IS ALWAYS CHECKED AS A STANDARD SERVICING PROCEDURE, AND THAT THE HIGH VOLTAGE READING BE RECORDED ON EACH CUSTOMER°ØS INVOICE.
5. WHEN TROUBLESHOOTING AND MAKING TEST MEASUREMENTS IN A PRODUCT WITH A PROBLEM OF EXCESSIVE HIGH VOLTAGE, AVOID BEING UNNECESSARILY CLOSE TO THE PICTURE TUBE AND THE HIGH VOLTAGE SUPPLY. DO NOT OPERATE THE PRODUCT LONGER THAN IS NECESSARY TO LOCATE THE CAUSE OF EXCESSIVE VOLTAGE.
6. REFER TO HV, B+ AND SHUTDOWN ADJUSTMENT PROCEDURES DESCRIBED IN THE APPROPRIATE SCHEMATIC AND DIAGRAMS (WHERE USED).

SUBJECT : IMPLOSION

1. ALL DIRECT VIEWED PICTURE TUBES ARE EQUIPPED WITH AN INTEGRA IMPLOSION PROTECTION SYSTEM. BUT CARE SHOULD BE TAKEN TO AVOID DAMAGE DURING INSTALLATION. AVOID SCRATCHING THE TUBE. OF SCRATCHED REPLACE IT.
2. USE ONLY RECOMMENDED FACTORY REPLACEMENT TUBES.

SUBJECT : TIPS ON PROPER INSTALLATION

1. NEVER INSTALL ANY PRODUCT IN A CLOSED-IN RECESS, CUBBYHOLE OR CLOSELY FITTING SHELF SPACE, OVER OR CLOSE TO HEAT DUCT, OR IN THE PATH OF HEATED AIR FLOW.
2. AVOID CONDITIONS OF HIGH HUMIDITY SUCH AS: OUTDOOR PATIO INSTALLATIONS WHERE DEW IS A FACTOR, NEAR STEAM RADIATORS WHERE STEAM LEAKAGE IS A FACTOR, ETC.
3. AVOID PLACEMENT WHERE DRAPERIES MAY OBSTRUCT REAR VENTING. THE CUSTOMER SHOULD ALSO AVOID THE USE OF DECORATIVE SCARVES OR OTHER COVERINGS WHICH MIGHT OBSTRUCT VENTILATION.
4. WALL AND SHELF MOUNTED INSTALLATIONS USING A COMMERCIAL MOUNTING KIT, MUST FOLLOW THE FACTORY APPROVED MOUNTING INSTRUCTIONS. A PRODUCT MOUNTED TO A SHELF OR PLATFORM MUST RETAIN ITS ORIGINAL FEET (OR THE EQUIVALENT THICKNESS IN SPACERS)TO PROVIDE ADEQUATE AIR FLOW ACROSS THE BOTTOM, BOLTS OR SCREWS USED FOR FASTENERS MUST NOT TOUCH ANY PARTS OR WIRING. PERFORM LEAKAGE TEST ON CUSTOMIZED INSTALLATIONS.
5. CAUTION CUSTOMERS AGAINST THE MOUNTING OF A PRODUCT ON SLOPING SHELF OR A TILTED POSITION, UNLESS THE PRODUCT IS PROPERLY SECURED.
6. A PRODUCT ON A ROLL-ABOUT CART SHOULD BE STABLE ON ITS MOUNTING TO THE CART. CAUTION THE CUSTOMER ON THE HAZARDS OF TRYING TO ROLL A CART WITH SMALL CASTERS ACROSS THRESHOLDS OR DEEP PILE CARPETS.
7. CAUTION CUSTOMERS AGAINST THE USE OF A CART OR STAND WHICH HAS NOT BEEN LISTED BY UNDERWRITERS LABORATORIES. INC. FOR USE WITH THEIR SPECIFIC MODEL OF TELEVISION RECEIVER OR GENERICALLY APPROVED FOR USE WITH T.V.S OF THE SAME OR LARGER SCREEN SIZE.
8. CAUTION CUSTOMERS AGAINST THE USE OF EXTENSION CORDS, EXPLAIN THAT A FOREST OF EXTENSIONS SPROUTING FROM A SINGLE OUTLET CAN LEAD TO DISASTROUS CONSEQUENCES TO HOME AND FAMILY.

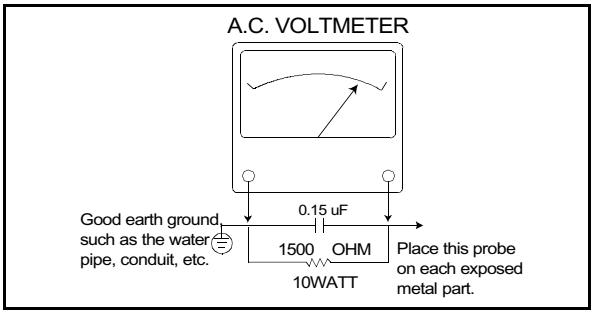
CAUTION : Do not attempt to modify this product in any way. Unauthorized modifications will not only void the warranty, but may lead to your being liable for any resulting property damage or user injury.
Service work should be performed only after you are thoroughly familiar with all of the following safety checks and servicing guidelines. To do otherwise, increases the risk of potential hazards and injury to the user.

SAFETY CHECKS

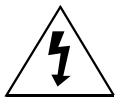
After the original service problem has been corrected, a check should be made of the following:

SUBJECT : FIRE & SHOCK HAZARD

1. Be sure that all components are positioned in such a way as to avoid possibility of adjacent component shorts. This is especially important on those chassis which are transported to and from the repair shop.
2. Never release a repair unless all protective devices such as insulators, barriers, covers, shields, strain reliefs, and other hardware have been reinstalled per original design.
3. Soldering must be inspected to discover possible cold solder joints, frayed leads, damaged insulation (including A.C. cord), solder splashes or sharp solder points. Be certain to remove all loose foreign particals.
4. Check for physical evidence of damage or deterioration to parts and components, and replace if necessary follow original layout, lead length and dress.
5. No leads or components should touch a receiving tube or a resistor rated at 1 watt or more. Lead tension around protruding metal surfaces must be avoided.
6. All critical components such as fuses, flameproof resistors, capacitors, etc. must be replaced with exact factory types. Do not use replacement components other than those specified or make unrecommended circuit modifications.
7. After re-assembly of the set always perform an A.C. leakage test on all exposed metallic parts of the cabinet, (the channel selector knob, antenna terminals, handle and screws) to be sure the set is safe to operate without danger of electrical shock. Do not use a line isolation transformer during this test. Use an A.C. voltmeter, having 5000 ohms per volt or more sensitivity, in the following manner : connect a 1500 ohm 10 watt resistor, paralleled by a 15 mfd. 150V A.C. type capacitor between a known good earth ground (9water pipe, conduit, etc.) and the exposed metallic parts, one at a time. Measure the A.C. voltage across the combination of 1500 ohm resistor and 0.15 MFD capacitor. Reverse the A.C. plug and repeat A.C. voltage measurements for each exposed metallic part. Voltage measured must not exceed 0.75 volts R.M.S. This corresponds to 0.5 milliamp A.C. Any value exceeding this limit constitutes a potential shock hazard and must be corrected immediately.

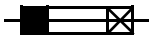

A.C. VOLTMETER
0.15 uF
Good earth ground such as the water pipe, conduit, etc.
1500 OHM
10WATT
Place this probe on each exposed metal part.

GRAPHIC SYMBOLS :



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the service personnel to the presence of uninsulated “dangerous voltage” that may be of sufficienty magnitude to constitute a risk of electric shock.

The exclamation point within an equilateral triangle is intended to alert the service personnel to the presence of important safety information in service literature.



Fuse symbol is printed on pcb adjacent to the fuse, with “RISK OF FIRE REPLACE FUSE AS MARKED”. The symbol is explained in the service manual with the following wording or equivalent.

“CAUTION : FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH SAME TYPE (6.3A, 250V)” and “**ATTENTION**: AFIN D’ASSU UNE PROTECTION PERMANENTE CONTRE LES RISQUES D’INCENDIE, REMPLACER UNIQUEMENT PAR UN FUSIBLE DE MEME TYPE ET DE ”6.3A, 250V”.

SUBJECT : X-RADIATION

1. Be sure procedures and instructions to all service personnel cover the subject of X-rays in current T.V. receivers is the picture tube. However, this tube does not emit X-rays when the high voltage is at the factory specified level. The proper value is given in the applicable schematic. Operation at higher voltages may cause a failure of the picture tube or high voltage supply and, under certain circumstances, may produce radiation in excess of desirable levels.
2. Only factory specified C.R.T. anode connectors must be used. Degaussing shields also serve as X-ray shield in color sets. Always re-install them.
3. It is essential that the serviceman has available an accurate and reliable high voltage meter. The calibration of the meter should be checked perio - dically against a reference standard. Such as the one available at your distributor.
4. When the high voltage circuitry is operating properly there is no possibility of an X-radiation problem. Every time a color chassis is serviced, the brightness should be run up and down while monitoring the high voltage with a meter to be certain that the high voltage does not exceed the specified value and that it is regulating correctly. We suggest that you and your service organization review test procedures so that voltage regulation is always checked as a standard servicing procedure. And that the high voltage reading be recorded on each customer’s invoice.
5. When troubleshooting and making test measurements in a receiver with a problem of excessive high voltage, avoid being unnecessarilyclosetothepicturetubeandthehighvoltagecompartment. Do not operate the chassis longer than is necessary to locate the cause of excessive voltage.
6. Refer to HV, B+and Shutdown adjustment procedures described in the appropriate schematic and diagrams(where used).

SUBJECT : IMPLOSION

1. All direct viewed picture tubes are equipped with an integral implosion protection system, but care should be taken to avoid damage during installation. Avoid scratching the tube. If scratched, replace it.
2. Use only recommended factory replacement tubes.

SUBJECT : TIPS ON PROPER INSTALLATION

1. Never install any receiver in closed-in recess, cubbyhole or closely fitting shelf space over, or close to heat duct, or in the path of heated air flow.
2. Avoid conditions of high humidity such as : Outdoor patio installations where dew is a factor. Near steam radiators where steam leakage is a factor, etc.
3. Avoid placement where draperies may obstruct rear venting. The customer should also avoid the use of decorative scarves or other coverings which might obstruct ventilation.
4. Wall and shelf mounted installations using a commercial mounting kit, must follow the factory approved mounting instructions. A receiver mounted to a shelf or platform must retain its original feet(or the equivalent thickness in spacers) to provide adequate are flow across the bottom, bolts or screws used for fasteners must not touch and parts or wiring. Perform leakage test on customized installations.
5. Caution customers against the mounting of a receiver on sloping shelf or a tilted position, unless the receiver is properly secured.
6. A receiver on a roll-about cart should be stable on its mounting to the cart. Caution the customer on the hazards of trying to roll a cart with small casters across thresholds or deep pile carpets.
7. Caution customers against the use of a cart or stand which has not been listed by underwriters laboratories, inc. For use with their specific model of television receiver or generically approved for use with T.V.'s of the same or larger screen size.

SPECIFICATION

ITEMS / MODEL		DVQ-10H1FCN(DVQ-9H1FC)	REMARK
TV SECTION	STANDARD	NTSC-M	
	TUNING SYSTEM	Frequency Synthesizer(FS) Tuning System	
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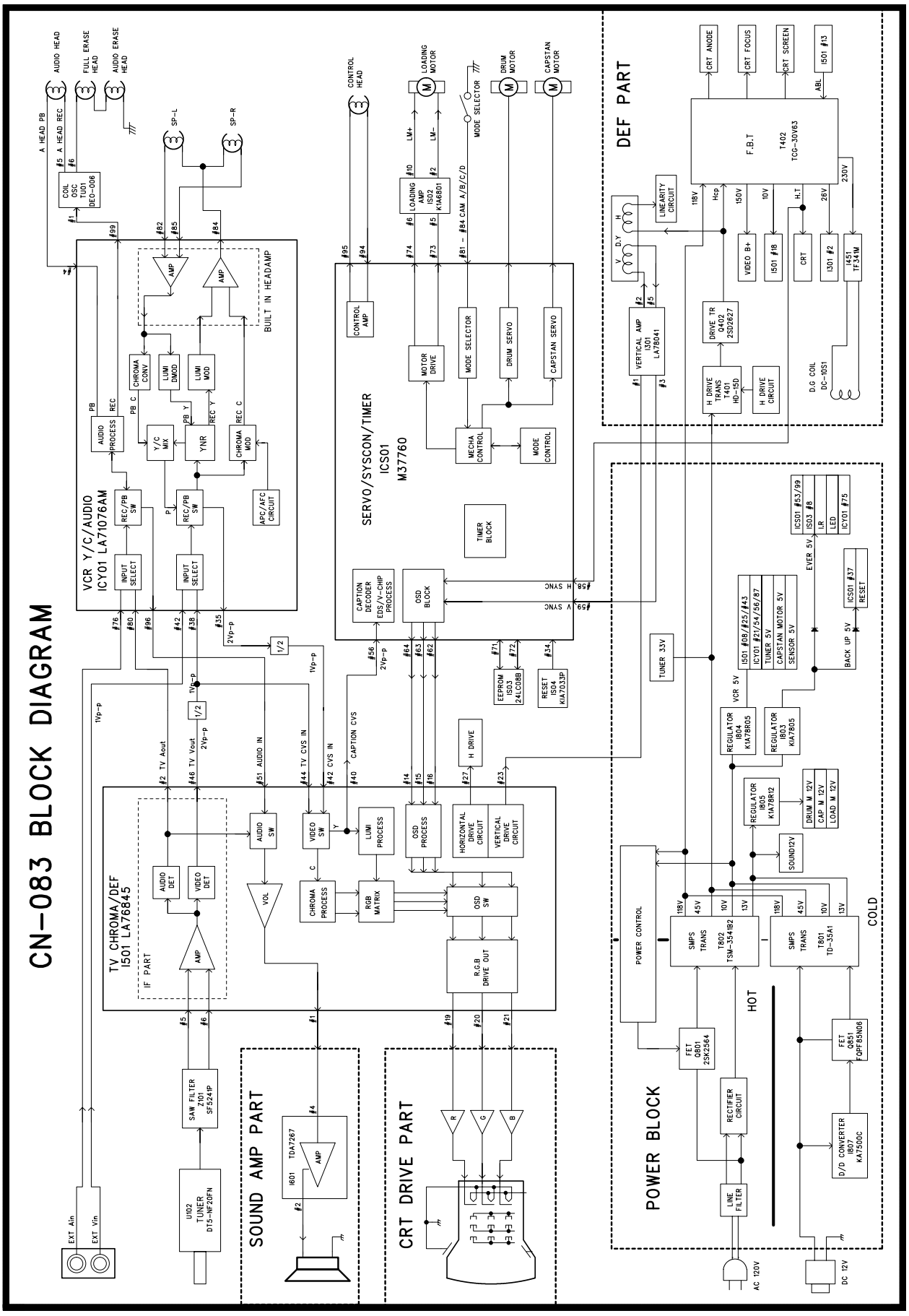
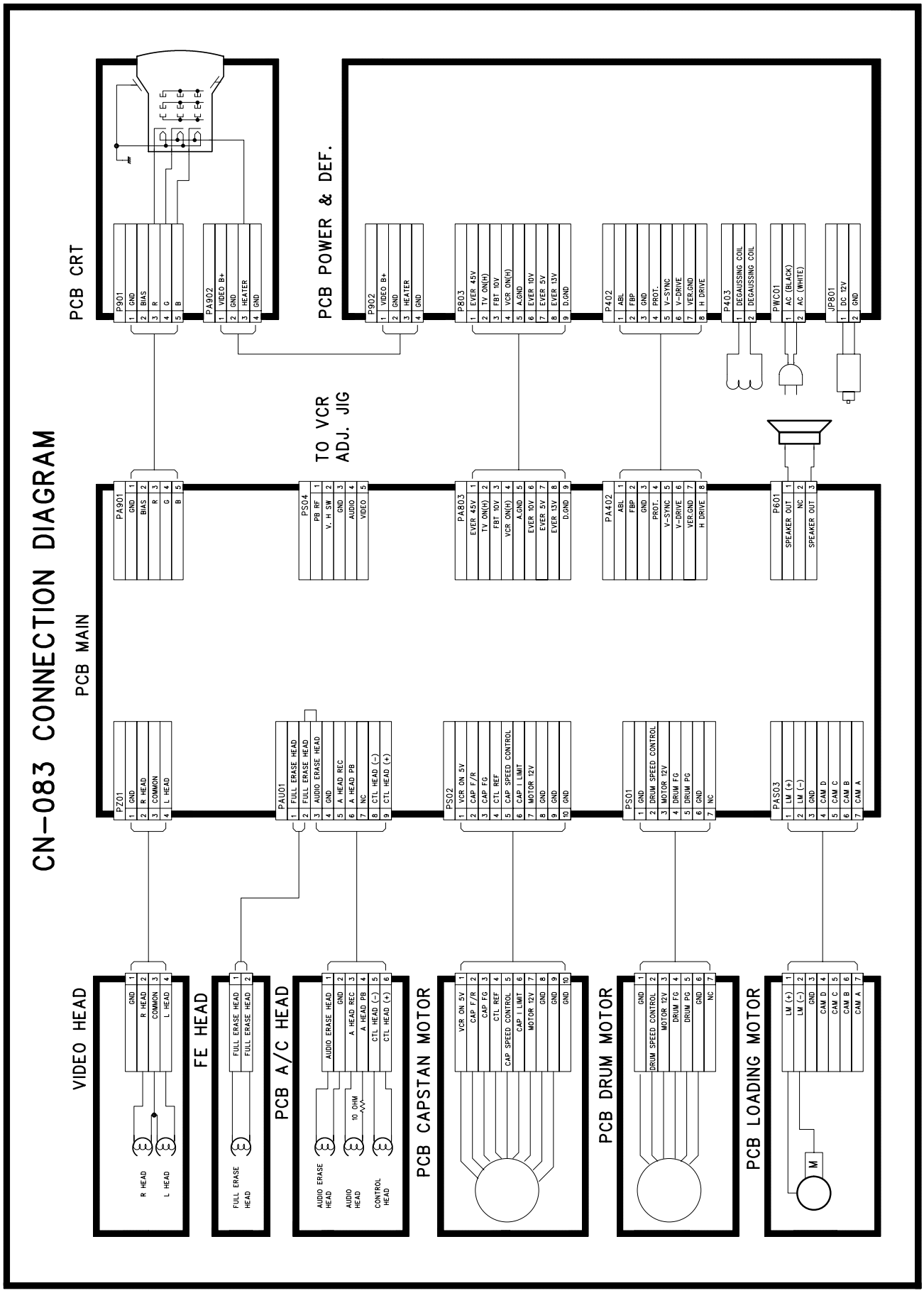
	ANTENNA INPUT IMPEDENCE	75 ohm Unbalanced	
	AUXILIARY INPUT TERMINAL	Front : Video, Audio	
VIDEO SECTION	FORMAT	VHS NTSC Standard	
	VCR SYSTEM	Rotary 2-Head Helical Scanning Monaural System	
	AUDIO RECORDING SYSTEM	Monaural	
	TAPE SPEED	SP:33.35mm/sec; EP:11.12mm/sec LP:16.67mm/sec PLAY ONLY	
	INPUT	Video :1Vp-p,75 Ohm Audio :3.8dBm, over 100K Ohm	
	TIMER PROGRAMING	6 Event/1 Month	
GENERAL	POWER INPUT	AC 120V 60Hz, DC 12V	
	POWER CONSUMPTION	47W (AC 120V), 54W (DC 12V)	
	SOUND OUTPUT	1W	
	SPEAKER	3W 8 OHM	
	OPRATING TEMPERATRE	5°C to 40°C	
	REMOTE CONTROL	R-39A02	
	SPECIAL FUNTION	3-Language OSD With CAPTION V-Chip K-50MECHA One Touch Record Repeat Play Energy Star Power (Stand-By:3W Under)	

CIRCUIT BLOCK DIAGRAM




CN-083 CONNECTION DIAGRAM
PCB CRT
PCB POWER & DEF.
TO VCR ADJ. JIG
PCB MAIN
VIDEO HEAD
FE HEAD
PCB A/C HEAD
PCB CAPSTAN MOTOR
PCB DRUM MOTOR
PCB LOADING MOTOR
R HEAD
L HEAD
FULL ERASE HEAD
AUDIO ERASE HEAD
AUDIO HEAD
CONTROL HEAD
10 OHM
M

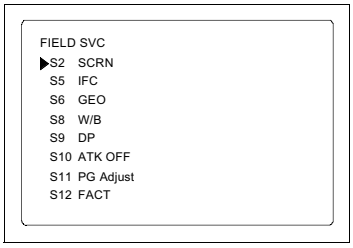
ALIGNMENT INSTRUCTIONS

1. SERVICE MODE ADJUSTMENTS

Follow the steps below whenever service adjustment is required. See Table-A.
and Table-B to determine if service adjustments are required.

1)How to enter the service mode using the user remote control.

- Turn the set on.
- Direct the remote control to the reception window of your TV/VCR
- Push buttons of remote control in sequence as follows.
  1 Z **MUTE** Z **RECALL** Z **MUTE**
- Then, the screen will appear as follows.



- Using the channel up (▲) or down (▼) buttons, select the item you wish to adjust..
  The curser (U) move you wish to adjust item.
- Using the volume up (U) or down(∩) buttons to enter in the sevice mode you wish to adjust.
- You adjust the values of service mode, automatically save to EEPROM

Table-A : Adjust the values of service mode when a part is replaced

PART REPLACE	ADJUSTMENT		NOTE
	NECESSARY	UNNECESSARY	
ICS01 (TIMER/SYSCON)		O	Data is stored in IS03(EEPROM)
I501 (TV CHROMA)		O	
IS03 (EEPROM)	O		Initial setting values are written from ICS01 Adjusting Items S5:IFC, S6:GEO, S8:W/B, S9:DP, S11:PG Adjust
CRT	O		Adjusting Items S2:SCRN, S6:GEO, S8:W/B, S9:DP
VCR DECK (DRN-9200)		O	Adjusting Items related to VCR DECK only. S10:ATK OFF, S11:PG Adjust
ICY01 (VCR Y/C)		O	

Table-B

MODE	ADJUSTMENT ITEMS	DATA		REMARK
		INITIAL	RANGE	
S2	Screen Adjustment	-	-	
S5: IF CONTROL	AGC Auto	-	-	Automatical adjustment
	AGC Vol	3.75V	-	Select AGC reference voltage (3.75V)
	AGC	* 1	0-63	Align RF AGC threshold
	VIDEO LEV	007	0-7	Must be set to 7
	FM LEV	005	0-31	Must be set to 5
	HFREQ	032	0-63	NOT USED
	CROSS BW * 2	-	-	NOT USED
S6: GEOMETRY	H CENTER (Horizontal center)	* 1	0-31	Using internal cross pattern (CROSS BW * 2)
	V SIZE (Vetical Size)	* 1	0-127	
	V CENTER (Vertical Center)	* 1	0-63	
	V SC (Vertical S-Correction)	0	0-31	Must be set to 0
	V LIN (Vertical Linearity)	20	0-31	Must be set to 20
	NO SD POWER OFF	NO		Automatically turn off in 15min for no received signal (YES)
	CROSS BW * 2	-	-	
	HBLKR	1	0-6	Must be set to 1
	HBLKL	6	0-6	Must be set to 6
S8: WHITE BALANCE	RD(Red Drive)	* 1	0-127	Using internal 100% WHITE pattern (CROSS BW * 2)
	GD(Green Drive)	10	0-15	
	BD(Blue Drive)	* 1	0-127	
	RB(Red Bias)	* 1	0-255	Using internal 60% WHITE pattern (CROSS BW * 2)
	GB(Green Bias)	* 1	0-255	
	BB(Blue Bias)	* 1	0-255	
	CROSS BW * 2	-	-	
S9 D.P	Brightness	* 1	0-63	
	sharpness	0	0-63	
	Color	30	0-63	
	Tint	27	0-63	
S10	ATK(Auto Tracking) OFF	-	-	For VCR DECK Adjustment
S11	PG Adjustment	-	-	Automatically P.G Adjustment
S12	FACT	-	-	Factory Initialization

*1 indicates the items with differnt settings each of sets.

*2 CROSS BW: Internal pattern of Device(I501:LA76845)

Whenever you select the "CROSS BW" using volume up(U) or down(◀) button, the screen is changing like this;

VOL UP (U)

NORMAL ⇄ BLACK ⇄ WHITE100 ⇄ WHITE60 ⇄ CROSS

VOL DOWN (◀)

2. ASSEMBLY ADJUSTMENTS

1) SCREEN ADJUSTMENT(S2)

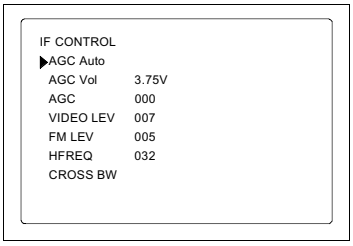
- Enter the service mode and select service adjustment S2
- You can see the horizontal straight line on the screen
- Adjust the Screen Control volume(located on FBT) so that the horizontal straight line on screen may be disappear.
- Press the MENU button to exit the screen adjustment mode.

2) FOCUS ADJUSTMENT(S2)

- Turn in a local station and the Focus Control volume(located on FBT) for best picture details at light condition.

3) RF-AGC ADJUSTMENT(S5)

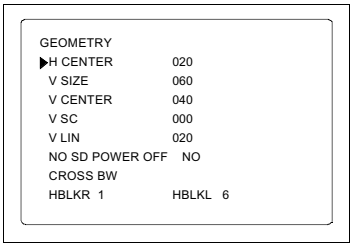
- Receive a good local channel.
- Enter the service mode and select service adjustment S5
- You can see the OSD as shown in below.



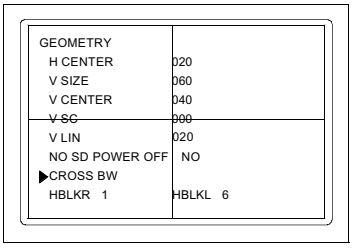
- Select AGC item, press volume up (U) or down(◀) buttons until noise or beet in picture disappears.

4) GEOMETRIC ADJUSTMENT(S6)

- Enter the service mode and select service adjustment S6
- You can see the OSD as shown in below.



- Use the CH up (▲) or down (▼) buttons to select "CROSS BW" item.
- Use the VOL up (U) button to select internal cross pattern.



- Figure1 -

4-1.HORIZONTAL CENTER Adjustment

- Select H CENTER item, adjust H CENTER data value to obtain proper horizontal centering of the internal cross pattern at the left and right of the screen.

4-2.VERTICAL CENTER Adjustment

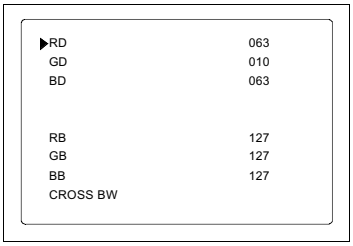
- Select V CENTER item, adjust V CENTER data value to center the raster properly on the screen.

4-3.VERTICAL SIZE Adjustment

- Select V SIZE item, adjust V SIZE data value to proper vertical size as figure 1.

5) WHITE BALANCE ADJUSTMENT(S8)

- Enter the service mode and select service adjustment S8.
- You can see the OSD as shown in below.



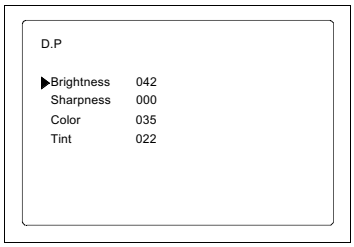
NOTE:
The color coordinator to x:265, y:270.

- Use the CH up(▲) or down (▼) buttons to select "CROSS BW" item.
- Use the VOL up (U) button to select internal WHITE60 pattern.
- Use the CH ▲ ▼ buttons to select RB/GB/BB item, adjust data until a good white.
- Use the CH ▲ ▼ buttons to select "CROSS BW" item.
- Use the VOL U button to select internal WHITE100 pattern.
- Use the CH ▲ ▼ buttons to select RD/BD item, adjust data until a good white.

6) D.P(DIGITAL PRESET) ADJUSTMENT(S9)

SUBBRIGHTNESS Adjustment

- Receive a good local channel.
- Enter the service mode and select service adjustment S9
- You can see the OSD as shown in below.



NOTE :
SUBBRIGHTNESS = RETMA PATTERN : 8%

- Select Brightness item, adjust Brightness data value to obtain normal brightness level.

Sharpness

- Fixed value = 000

Color

- Fixed value = 035

Tint

- Fixed value = 022

3. VCR DECK ADJUSTMENTS

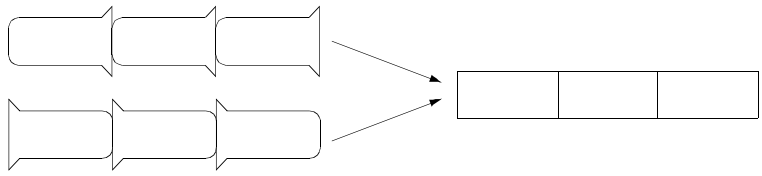
1) X-DISTANCE & P2,P3 ADJUSTMENT(S10)

- Connect Path JIG to connector PS04, Playback the test tape (DN-2,7KHz)
- Connect oscilloscope CH1 to V.SW(PS04 #2),CH2 to PB RF(PS04 #1) and trigger on CH1.
- Enter the service mode and select service adjustment S10
- Use the VOL up(∪) button to set ATK Off CEN.
- Turn the X-distance screw to maximum of PB-RF.
- Use the VOL up(∪) button to set ATK Off MIN and MAX.
- If PB-RF is not smooth, adjust P2,P3.

❁ P2, P3

VH SW

RF

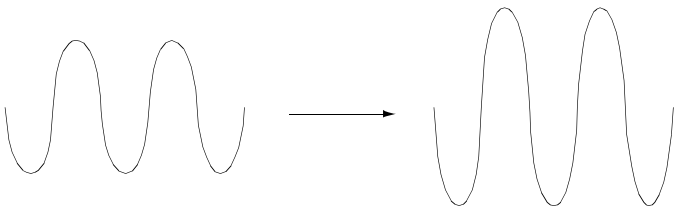


2) P.G ADJUSTMENT(S11)

- Playback the test tape (DN-2,7KHz)
- Enter the service mode and select service adjustment S11
- Push the "REC" KEY once, P.G Adjustment is Automatically.
- Connect oscilloscope CH1 to V/SW(PS04 #2),CH2 to CVS(PS04 #5) and trigger on CH1, Confirm The P.G is 6.5H(412msec).

3) AUDIO AZIMUTH ADJUSTMENT

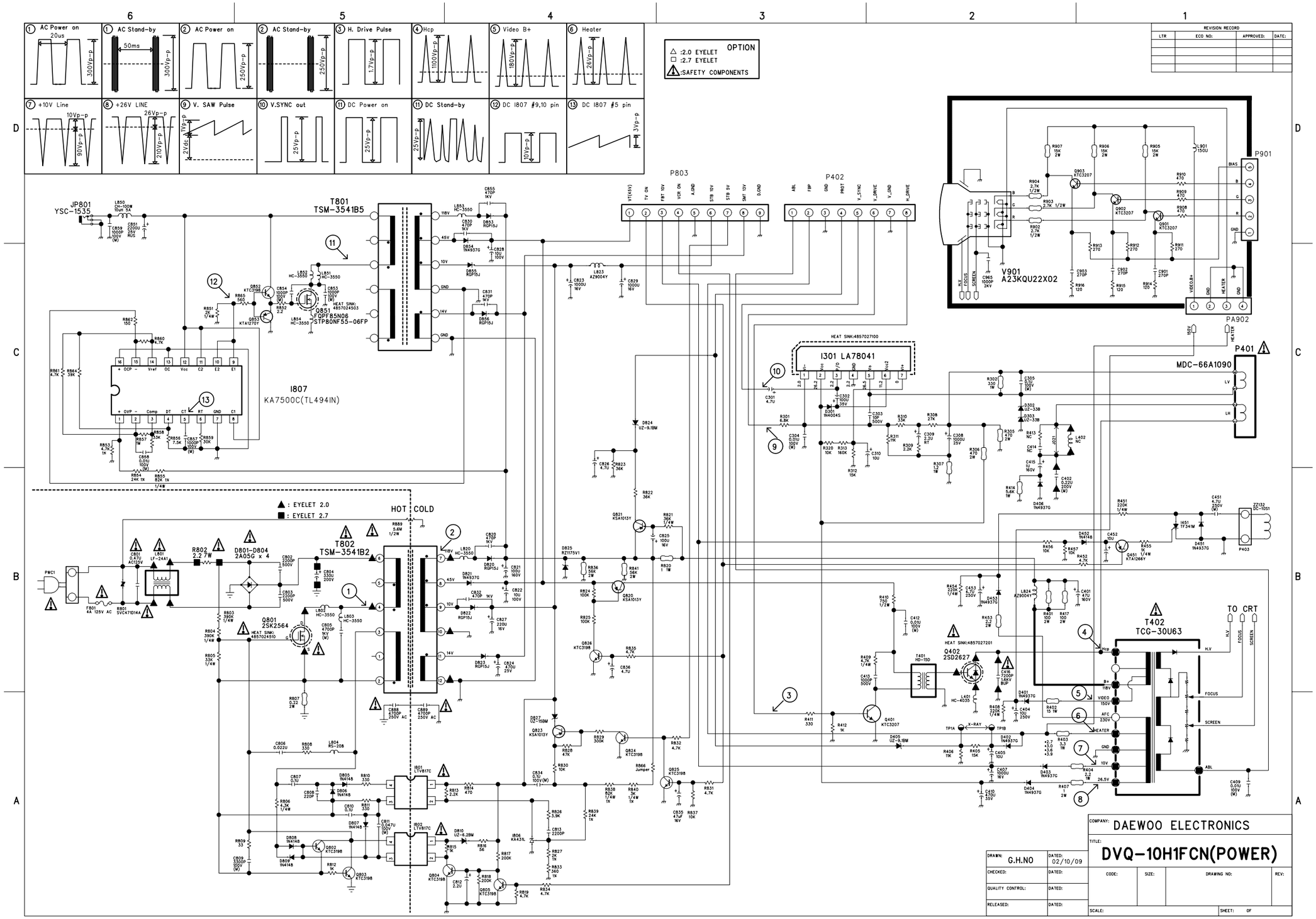
- Playback the test tape (DN-2,7KHz)
- Connect oscilloscope and level meter to Aout(PS04 #4).
- Turn the azimuth screw to maximum 7KHz level.



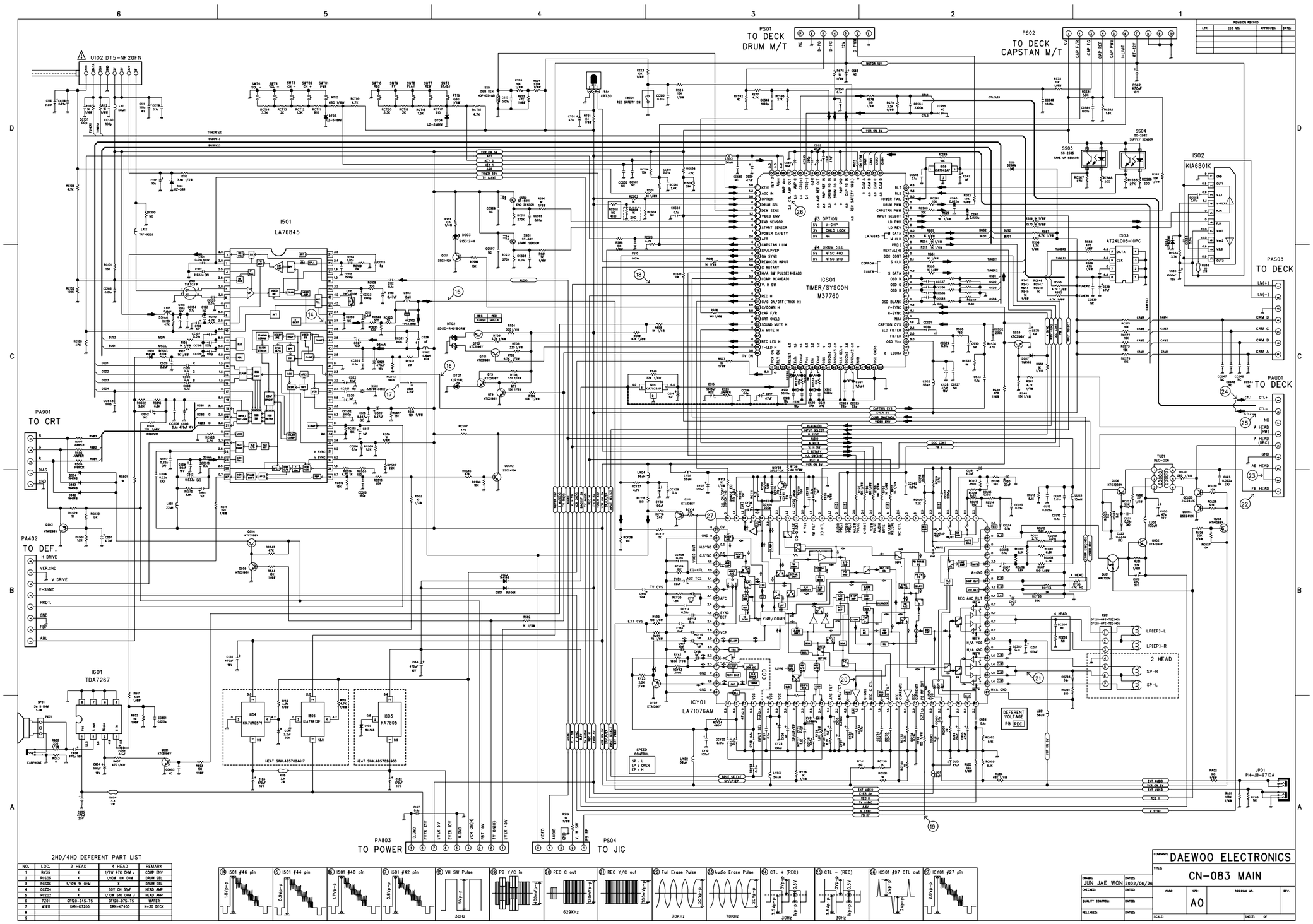
4) FACTORY OUTGOING MODE(S12)

- If you select the S12, then the set becomes factory outgoing status.
- You can see the channel to "02" or if the set playback you can see the OSD "AUTO TRACKING"

SCHEMATIC DIAGRAM (POWER & DEF.)

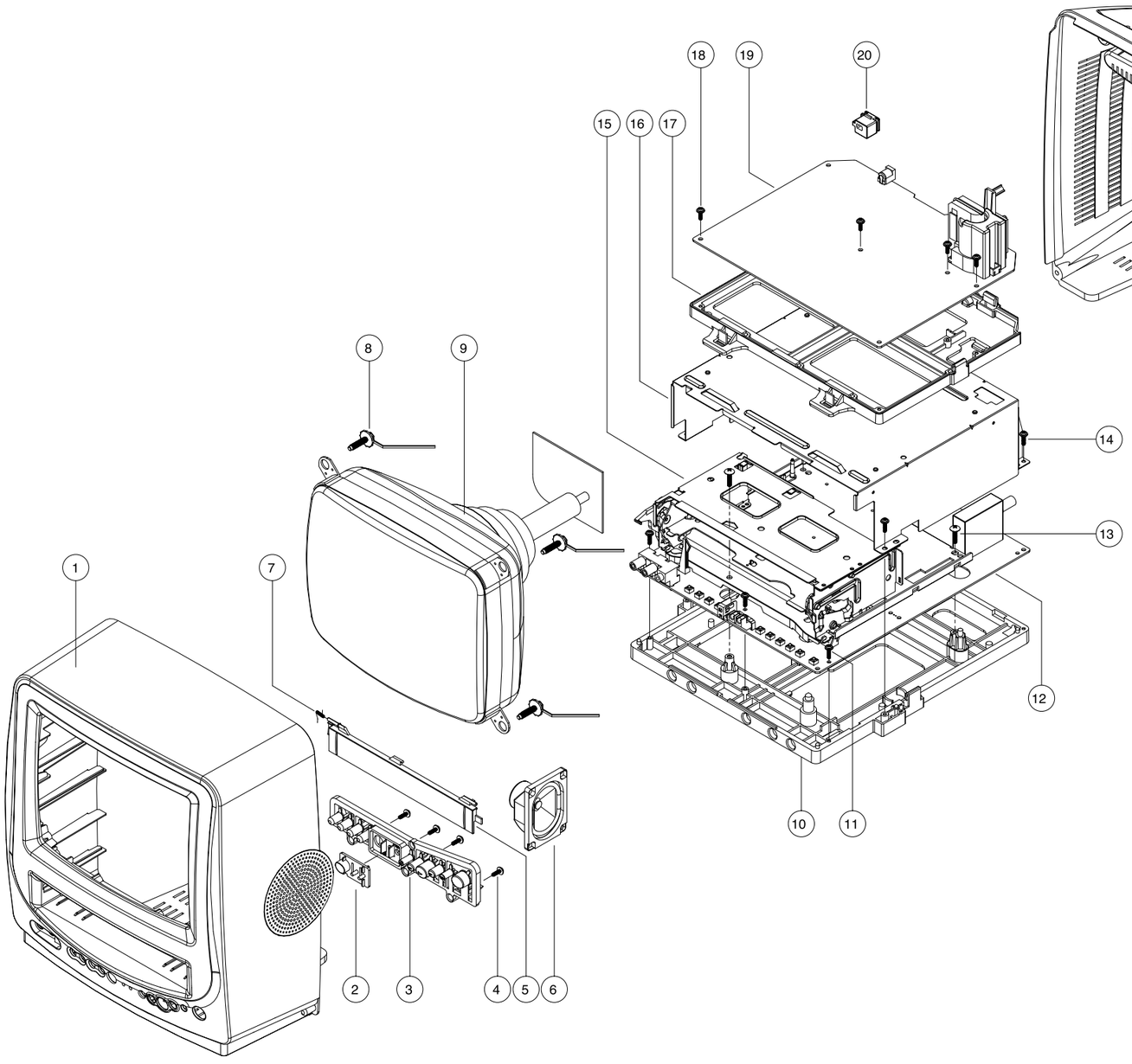


SCHEMATIC DIAGRAM(MAIN)



NO.	LOC.	2 HEAD	4 HEAD	REMARK
1	RV35	X	1/6W 47K OHM J	COMP ENV
2	RC505	X	1/10W 10K OHM	DRUM SEL
3	RC506	X	X	DRUM SEL
4	CC224	X	50V CH 56pF	HEAD AMP
5	RC222	X	1/10W 51Ω OHM J	HEAD AMP
6	P201	GF120-045-1S	GF120-075-1S	WAFER
7	M1911	DRN-K7200	DRN-K7400	K-30 DECK
8				
9				

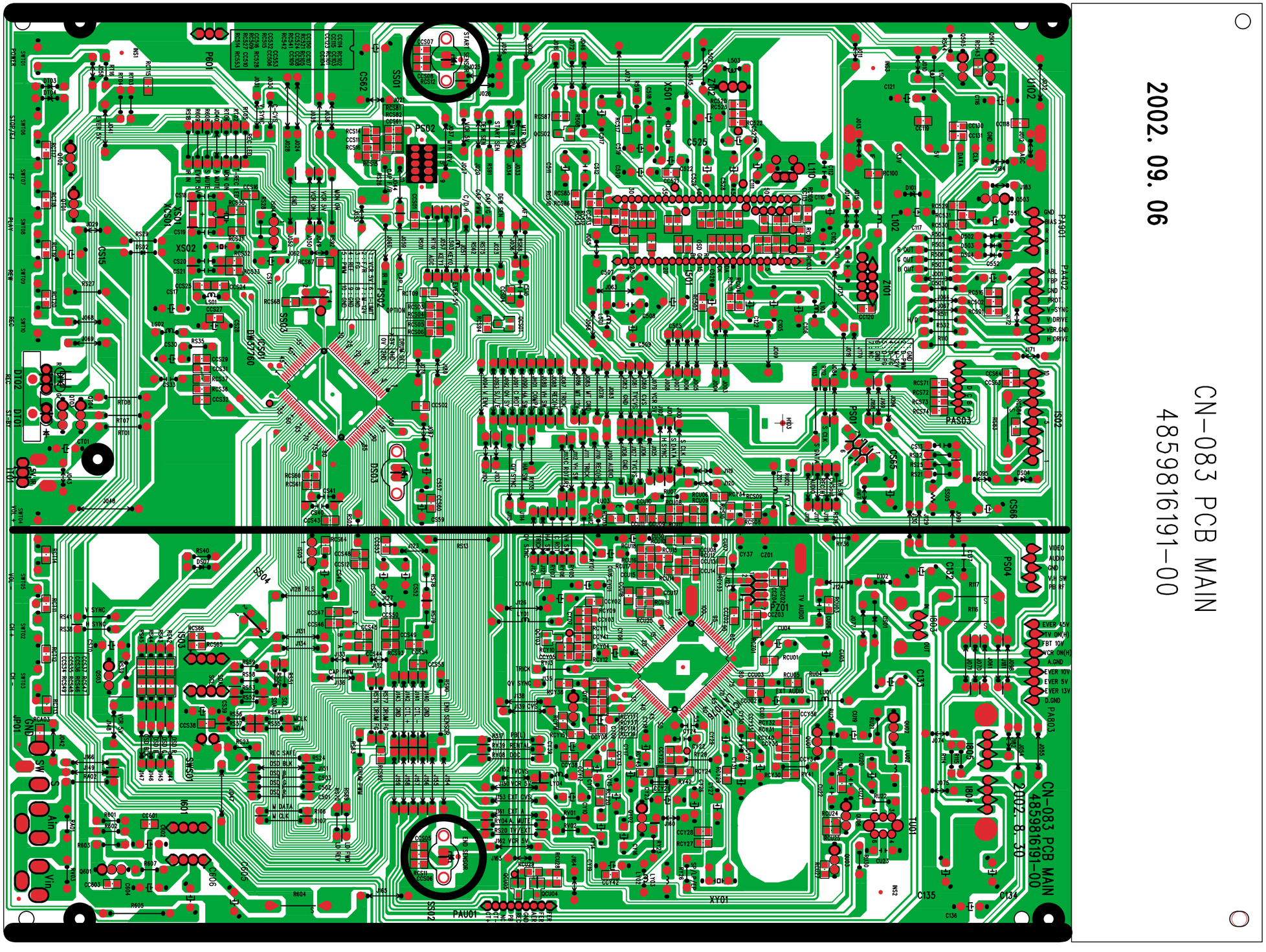
EXPLODED VIEW



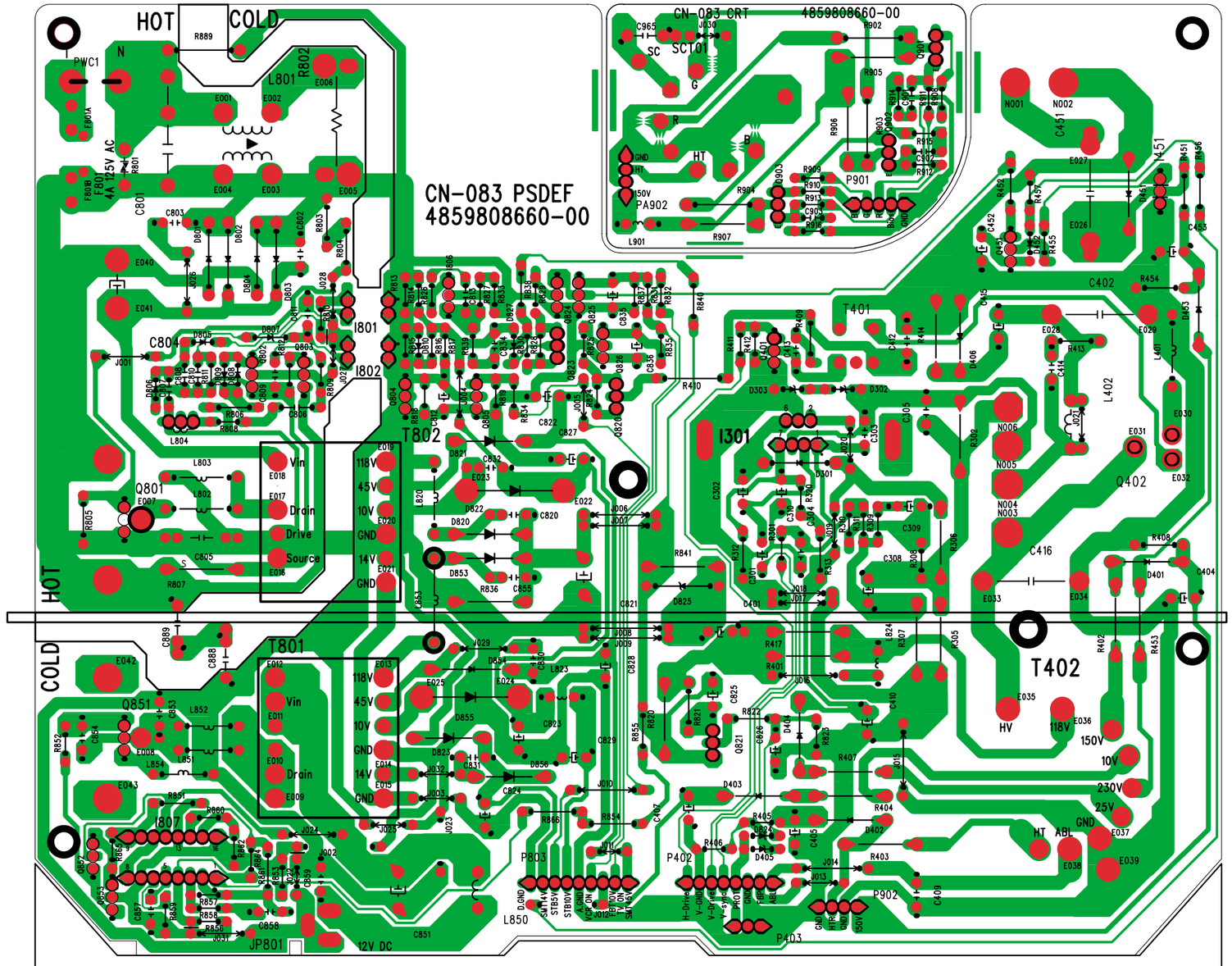
No	PART CODE	PART NAME	Q'ty	MATERIAL	REMARKS
26					
25					
24	7172401612	SCREW TAPPTITE	4	TT2 TRS 4X16 MFZN BK	1+22
23	7172401612	SCREW TAPPTITE	2	TT2 TRS 4X16 MFZN BK	17+22
22	4852162700	COVER BACK	1	FR HIPS BK	
21	97P4602700	CORD CLAMP	1	NYLON 66 BLK 5280N	
20	97P2316600	HOLDER AC CORD	1	NYLON 66	
19	4859808660	UNION PCB	1	246 X 246 X 51.6	
18	7178301011	SCREW TAPPTITE	4	TT2 WAS 3X10 MFZN	17+19
17	4851949100	M/FRAME PCB AS	1	3818800+7249500	
16	4857249400	SHIELD TOP	1	SECC T0.8	
15	4851941600	DECK AS	1	DRN-9200	
14	7178301212	SCREW TAPPTITE	4	TT2 WAS 3X12 MFZN BK	10+16
13	7172401612	SCREW TAPPTITE	3	TT2 TRS 4X16 MFZN BK	10+15
12	4859816191	MAIN PCB	1	330 X 246 X t1.6	
11	7178301011	SCREW TAPPTITE	3	TT2 WAS 3X10 MFZN	10+12
10	4853818700	FRAME MAIN PCB	1	FR HIPS BK	
9	4859610440	CRT	1	A23KQU22X02	
8	4856013350	SCREW CRT FIXING	4	25X80 BK	1+9
7	4856723400	SPRING	1	SWPB ÿ0.4	
6	4858314310	SPEAKER	1		
5	4852817701	DOOR F/L	1	ABS BK	
4	7178301212	SCREW TAPPTITE	4	TT2 WAS 3X12 MFZN BK	1+3
3	4854954201	BUTTON CH	1	ABS BK	
2	4855548600	DECO SENSOR	1	PMMA MILKY	
1	4852082900	MASK FRONT	1	FR HIPS BK	

UNITS	-	Designed by	Checked by	Inspected by	Approved by	PART NAME	
SCALE	N.S	CMD 02.08.20	B.W SEO 02.08.20			DEVELOPMENT DWG	
Daewoo Electronics Corp. TV R&D CENTER, TEAM 4					MODEL	DVQ-10H1FCN	D/N 485009KS
					REFERENCE	CN-083	

PRINTED CIRCUIT BOARD(MAIN)



PRINTED CIRCUIT BOARD(POWER & DEF.)



SERVICE PARTS LIST

CAUTION

"⚠" is safety component, so it must be used the same component.

✔ In this Service Manual, some parts can be changed for improving, their performance without notice in the parts list. So, if you need the latest parts information, please refer to PPL(Parts Price List) in Service information Center(http://svc.dwe.co.kr)

LOC	PART CODE	PART NAME	DESCRIPTION	REMARK
ZZ100	48B4139A02	TRANSMITTER REMOCON	R-39A02 (AAA)	
ZZ110	PTACPWH611	ACCESSORY AS	DVQ-10H1FCN	
00001	4850A02510	ANT ROD	S3BW216B (L=600 MM)	
00002	4850A00250	TRANS ANT MATCHING	IMT-06	
00003	4859910010	CORD CAR AS	DLF-1033+SPT-2=2000	
00004	48586083E1	MANUAL INSTRUCTION	ENGLISH	
M821	4858213800	BAG INSTRUCTION	L.D.P.E T0.05X250X400	
ZZ120	PTBCSHH611	COVER BACK AS	DVQ-10H1FCN	
M211	4852162700	COVER BACK	FR HIPS BK 10H1	
ZZ130	PTPKCPH611	PACKING AS	DVQ-10H1FCN	
M801	4858061700	BOX CARTON	SW-2 10H1	
M811	4858100V00	PAD	EPS 10H1	
M822	4858219300	BAG P.E	P.E FOAM T0.5X850X850	
ZZ131	48519A6510	CRT GROUND NET	1001S-1015-1P	⚠
ZZ132	58G0000160	COIL DEGAUSSING	DC-10S1	⚠
ZZ140	PTCACAH611	CABINET AS	DVQ-10H1FCN	
M201A	4856013355	SCREW CRT FIXING	25X50 WH	
M201B	7172401612	SCREW TAPPTITE	TT2 TRS 4X16 MFZN BK	
M201C	7172401612	SCREW TAPPTITE	TT2 TRS 4X16 MFZN BK	
M351	4853535600	HOLDER CORD	NYROLN 66	
M541	4855415800	SPEC PLATE	150ART P/E FILM (C/TV)	
M682	4856812001	TIE CABLE	NYLON66 DA100	
V901	4859610440	CRT	A23KQU22X02 P38	⚠
ZZ200	PTFMSJH611	MASK FRONT AS	DVQ-10H1FCN	
M191	4851948600	BUTTON CTRL	4954201+5548600 10H1	
M191A	7178301011	SCREW TAPPTITE	TT2 WAS 3X10 MFZN	
M201	4852082900	MASK FRONT	FR HIPS BK 10H1	
M281	4852817701	DOOR F/L	ABS BK	
M281A	4856723400	SPRING	SWPB 0.4	
ZZ210	PTSPPWH611	SPEAKER AS	DVQ-10H1FCN	
PA601	4850703S50	CONNECTOR	YH025-03+35098+ULW=200	
SP01	4858314310	SPEAKER	SP-5070A01 3W 8 OHM	
ZZ290	PTMPMSH611	PCB MAIN MANUAL AS	DVQ-10H1FCN	
DS03	DS15312H--	LED IR	SI5312-H	
DS03A	97P2339600	HOLDER IR	ABS	
DT01	DKLR114L--	LED	KLR114L	
DT02	DSD50RH51B	LED	SD50-RH51BGRW	
I501	1LA76845N-	IC	LA76845N	
I601	1TDA7267--	IC AUDIO AMP	TDA7267	
I803	PTJ2SW6900	HEAT SINK ASS`Y	1L7805CV-- + 7174300811	
00001	1L7805CV--	IC REGULATOR	L7805CV	
0000A	4857026900	HEAT SINK	AL EX	
0000B	7174300811	SCREW TAPPTITE	TT2 RND 3X8 MFZN	
I804	PTD2SW4617	HEAT SINK ASS`Y	1K78R05--- + 7174300811	
I804	1K78R05---	IC REGULATOR	KIA78R05PI	
I804A	4857024617	HEAT SINK	AL EX	
I804B	7174300811	SCREW TAPPTITE	TT2 RND 3X8 MFZN	
I805	1K78R12---	IC REGULATOR	KIA78R12PI	

LOC	PART CODE	PART NAME	DESCRIPTION	REMARK
I805A	7174300811	SCREW TAPPTITE	TT2 RND 3X8 MFZN	
IS02	1K1A6801K-	IC MOTOR DRIVER	KIA6801K	
IS03	1AT24C08PC	IC	AT24C08-10PC	
IT01	1356VF6---	IC PREAMP	356VF6	
JP01	4859109950	JACK PIN BOARD	PH-JB-9710A	
L102	58C5580019	COIL CHOKE	TRF-9225 (0.55UH)	
L110	58N0000042	COIL VCO	TRF-V008	
M191	4851941600	DECK AS	DRN-9200	
M351	4853535200	HOLDER LED	FR HIPS BK	
M381	4853818700	FRAME MAIN PCB	FR HIPS BK 10H1	
M381A	7178301011	SCREW TAPPTITE	TT2 WAS 3X10 MFZN	
M721	4857249400	SHIELD TOP	SECC T0.8	
M721A	7178301212	SCREW TAPPTITE	TT2 WAS 3X12 MFZN BK	
M721B	7172401612	SCREW TAPPTITE	TT2 TRS 4X16 MFZN BK	
M721C	7178301212	SCREW TAPPTITE	TT2 WAS 3X12 MFZN BK	
M721D	97P0475800	CASE SHI PREAMP	ET T0.4	
PA402	4850708S06	CONNECTOR	YH025-08+YBNT025-08=200	
PA803	4850709S01	CONNECTOR	YH025-09+YST025+ULW=200	
PA901	4850705N10	CONNECTOR	SMH250-05+YBNT250+ULW=300	
PAS03	4850707V07	CONNECTOR	60-8283-3078-45+ULW=150	
PAU01	4850706N07	CONNECTOR	60-8283-3068-45+USW=250	
PS01	4859292320	CONN WAFER	GF120-07S-TS	
PS01A	4859200170	CONN FFC	K-7X100-0.25	
PS02	4859278220	CONN WAFER	TKC-G10P-A1	
PZ01	4859292220	CONN WAFER	GF120-04S-TS-R	
SS01	TST5811B--	TR PHOTO	ST-5811(B-RANK)	
SS01A	97P2343500	HOLDER TR	ABS FR	
SS02	TST5811B--	TR PHOTO	ST-5811(B-RANK)	
SS02A	97P2343500	HOLDER TR	ABS FR	
SS03	4850S00001	SENSOR REEL	SG-258S	
SS04	4850S00001	SENSOR REEL	SG-258S	
SS05	4850S00003	SENSOR DEW	SY-DS-3	
SWS01	5SN0101Z20	SW DETECT	JDS1105-6XD	
TU01	5800000032	COIL OSC	DE0-006	
U102	4859721730	TUNER VARACTOR	DT5-NF20F N	
XS01	5XYR03276C	CRYSTAL QUARTZ	C-001R 32.768000KHZ 20PPM	
XS02	5XJ16R000E	CRYSTAL QUARTZ	HC-49S 16.000000MHZ 30PPM	
Z101	5PM1876D--	FILTER SAW	M1876D	
Z102	5PYXT4R5MB	FILTER CERA	XT 4.5MB	
ZZ200	PTMPJ2H611	PCB CHIP MOUNT B AS	DVQ-10H1FCN	
CC103	HCBK103KCA	C CHIP CERA	50V X7R 0.01MF K 2012	
CC104	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012	
CC107	HCBK103KCA	C CHIP CERA	50V X7R 0.01MF K 2012	
CC108	HCQK101JCA	C CHIP CERA	50V CH 100PF J 2012	
CC109	HCQK101JCA	C CHIP CERA	50V CH 100PF J 2012	
CC113	HCQK809DCA	C CHIP CERA	50V CH 8PF D 2012	
CC114	HCBK103KCA	C CHIP CERA	50V X7R 0.01MF K 2012	
CC115	HCBK152KCA	C CHIP CERA	50V X7R 1500PF K 2012	
CC118	HCBK103KCA	C CHIP CERA	50V X7R 0.01MF K 2012	

SERVICE PARTS LIST

LOC	PART CODE	PART NAME	DESCRIPTION	REMARK
CC120	HCBK103KCA	C CHIP CERA	50V X7R 0.01MF K 2012	
CC123	HCBK102KCA	C CHIP CERA	50V X7R 1000PF K 2012	
CC130	HCQK101JCA	C CHIP CERA	50V CH 100PF J 2012	
CC131	HCQK101JCA	C CHIP CERA	50V CH 100PF J 2012	
CC506	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012	
CC510	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012	
CC513	HCQK181JCA	C CHIP CERA	50V CH 180PF J 2012	
CC516	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012	
CC521	HCQK180JCA	C CHIP CERA	50V CH 18PF J 2012	
CC524	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012	
CC532	HCBK102KCA	C CHIP CERA	50V X7R 1000PF K 2012	
CC553	HCQK101JCA	C CHIP CERA	50V CH 100PF J 2012	
CC601	HCBK153KCA	C CHIP CERA	50V X7R 0.015MF K 2012	
CCS04	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012	
CCS05	HCBK103KCA	C CHIP CERA	50V X7R 0.01MF K 2012	
CCS08	HCBK103KCA	C CHIP CERA	50V X7R 0.01MF K 2012	
CCS11	HCBK103KCA	C CHIP CERA	50V X7R 0.01MF K 2012	
CCS12	HCBK103KCA	C CHIP CERA	50V X7R 0.01MF K 2012	
CCS16	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012	
CCS24	HCQK220JCA	C CHIP CERA	50V CH 22PF J 2012	
CCS25	HCQK220JCA	C CHIP CERA	50V CH 22PF J 2012	
CCS29	HCBK103KCA	C CHIP CERA	50V X7R 0.01MF K 2012	
CCS31	HCBK102KCA	C CHIP CERA	50V X7R 1000PF K 2012	
CCS32	HCQK201JCA	C CHIP CERA	50V CH 200PF J 2012	
CCS34	HCQK101JCA	C CHIP CERA	50V CH 100PF J 2012	
CCS35	HCQK101JCA	C CHIP CERA	50V CH 100PF J 2012	
CCS36	HCQK101JCA	C CHIP CERA	50V CH 100PF J 2012	
CCS37	HCQK101JCA	C CHIP CERA	50V CH 100PF J 2012	
CCS43	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012	
CCS48	HCBK102KCA	C CHIP CERA	50V X7R 1000PF K 2012	
CCS49	HCBK102KCA	C CHIP CERA	50V X7R 1000PF K 2012	
CCS50	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012	
CCS53	HCQK391JCA	C CHIP CERA	50V CH 390PF J 2012	
CCS54	HCBK332KCA	C CHIP CERA	50V X7R 3300PF K 2012	
CCS61	HCBK103KCA	C CHIP CERA	50V X7R 0.01MF K 2012	
CCS63	HCBK103KCA	C CHIP CERA	50V X7R 0.01MF K 2012	
CCS64	HCBK103KCA	C CHIP CERA	50V X7R 0.01MF K 2012	
CCU02	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012	
CCU03	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012	
CCU08	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012	
CCU09	HCBK103KCA	C CHIP CERA	50V X7R 0.01MF K 2012	
CCU10	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012	
CCU11	HCBK103KCA	C CHIP CERA	50V X7R 0.01MF K 2012	
CCU13	HCBK103KCA	C CHIP CERA	50V X7R 0.01MF K 2012	
CCU14	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012	
CCU15	HCBK103KCA	C CHIP CERA	50V X7R 0.01MF K 2012	
CCU17	HCBK222KCA	C CHIP CERA	50V X7R 2200PF K 2012	
CCU18	HCBK152KCA	C CHIP CERA	50V X7R 1500PF K 2012	
CCY02	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012	
CCY03	HCQK391JCA	C CHIP CERA	50V CH 390PF J 2012	
CCY04	HCQK201JCA	C CHIP CERA	50V CH 200PF J 2012	
CCY05	HCQK390JCA	C CHIP CERA	50V CH 39PF J 2012	
CCY08	HCBK103KCA	C CHIP CERA	50V X7R 0.01MF K 2012	
CCY12	HCBK103KCA	C CHIP CERA	50V X7R 0.01MF K 2012	

LOC	PART CODE	PART NAME	DESCRIPTION	REMARK
CCY13	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012	
CCY20	HCBK103KCA	C CHIP CERA	50V X7R 0.01MF K 2012	
CCY21	HCBK103KCA	C CHIP CERA	50V X7R 0.01MF K 2012	
CCY28	HCBK103KCA	C CHIP CERA	50V X7R 0.01MF K 2012	
CCY33	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012	
CCY34	HCBK473KCA	C CHIP CERA	50V X7R 0.047MF K 2012	
CCY35	HCBK473KCA	C CHIP CERA	50V X7R 0.047MF K 2012	
CCY36	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012	
CCY38	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012	
CCY40	HCBK103KCA	C CHIP CERA	50V X7R 0.01MF K 2012	
CCY41	HCQK510JCA	C CHIP CERA	50V CH 51PF J 2012	
CCY42	HCBK103KCA	C CHIP CERA	50V X7R 0.01MF K 2012	
CCZ02	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012	
CCZ03	HCQK510JCA	C CHIP CERA	50V CH 51PF J 2012	
ICS01	1DW760EA1Q	IC MICOM	DW37760MCH-EA1	
ICY01	1LA71076AQ	IC CHIP Y/C	LA71076AM	
QCS01	T2SC2412KB	TR CHIP	2SC2412K-T146-BR	
QCS02	T2SC2412KB	TR CHIP	2SC2412K-T146-BR	
QCU04	T2SC2412KB	TR CHIP	2SC2412K-T146-BR	
QCU05	T2SC2412KB	TR CHIP	2SC2412K-T146-BR	
QCY03	T2SC2412KB	TR CHIP	2SC2412K-T146-BR	
RC101	HRFT153JCA	R CHIP	1/10 15K OHM J 2012	
RC102	HRFT104JCA	R CHIP	1/10 100K OHM J 2012	
RC103	HRFT472JCA	R CHIP	1/10 4.7K OHM J 2012	
RC104	HRFT473JCA	R CHIP	1/10 47K OHM J 2012	
RC105	HRFT473JCA	R CHIP	1/10 47K OHM J 2012	
RC108	HRFT331JCA	R CHIP	1/10 330 OHM J 2012	
RC109	HRFT103JCA	R CHIP	1/10 10K OHM J 2012	
RC110	HRFT472JCA	R CHIP	1/10 4.7K OHM J 2012	
RC501	HRFT102JCA	R CHIP	1/10 1K OHM J 2012	
RC502	HRFT222JCA	R CHIP	1/10 2.2K OHM J 2012	
RC503	HRFT824JCA	R CHIP	1/10 820K OHM J 2012	
RC509	HRFT122JCA	R CHIP	1/10 1.2K OHM J 2012	
RC510	HRFT392JCA	R CHIP	1/10 3.9K OHM J 2012	
RC512	HRFT103JCA	R CHIP	1/10 10K OHM J 2012	
RC513	HRFT152JCA	R CHIP	1/10 1.5K OHM J 2012	
RC514	HRFT472FCA	R CHIP	1/10 4.7K OHM F 2012	
RC515	HRFT103JCA	R CHIP	1/10 10K OHM J 2012	
RC516	HRFT622JCA	R CHIP	1/10 6.2K OHM J 2012	
RC517	HRFT123JCA	R CHIP	1/10 12K OHM J 2012	
RC520	HRFT390JCA	R CHIP	1/10 39 OHM J 2012	
RC521	HRFT824JCA	R CHIP	1/10 820K OHM J 2012	
RC522	HRFT301JCA	R CHIP	1/10 300 OHM J 2012	
RC523	HRFT331JCA	R CHIP	1/10 330 OHM J 2012	
RC527	HRFT223JCA	R CHIP	1/10 22K OHM J 2012	
RC528	HRFT272JCA	R CHIP	1/10 2.7K OHM J 2012	
RC529	HRFT102JCA	R CHIP	1/10 1K OHM J 2012	
RC530	HRFT153JCA	R CHIP	1/10 15K OHM J 2012	
RC531	HRFT122JCA	R CHIP	1/10 1.2K OHM J 2012	
RC541	HRFT205JCA	R CHIP	1/10 2M OHM J 2012	
RC542	HRFT564JCA	R CHIP	1/10 560K OHM J 2012	
RC543	HRFT473JCA	R CHIP	1/10 47K OHM J 2012	
RC553	HRFT121JCA	R CHIP	1/10 120 OHM J 2012	
RCA03	HRFT000-CA	R CHIP	1/10 0 OHM 2012	

LOC	PART CODE	PART NAME	DESCRIPTION	REMARK
RCS03	HRFT102JCA	R CHIP	1/10 1K OHM J 2012	
RCS06	HRFT102JCA	R CHIP	1/10 1K OHM J 2012	
RCS08	HRFT473JCA	R CHIP	1/10 47K OHM J 2012	
RCS09	HRFT393JCA	R CHIP	1/10 39K OHM J 2012	
RCS10	HRFT103JCA	R CHIP	1/10 10K OHM J 2012	
RCS11	HRFT304JCA	R CHIP	1/10 300K OHM J 2012	
RCS12	HRFT304JCA	R CHIP	1/10 300K OHM J 2012	
RCS14	HRFT103JCA	R CHIP	1/10 10K OHM J 2012	
RCS15	HRFT362JCA	R CHIP	1/10 3.6K OHM J 2012	
RCS16	HRFT472JCA	R CHIP	1/10 4.7K OHM J 2012	
RCS30	HRFT106JCA	R CHIP	1/10 10M OHM J 2012	
RCS31	HRFT104JCA	R CHIP	1/10 100K OHM J 2012	
RCS32	HRFT105JCA	R CHIP	1/10 1M OHM J 2012	
RCS33	HRFT511JCA	R CHIP	1/10 510 OHM J 2012	
RCS36	HRFT471JCA	R CHIP	1/10 470 OHM J 2012	
RCS37	HRFT105JCA	R CHIP	1/10 1M OHM J 2012	
RCS46	HRFT102JCA	R CHIP	1/10 1K OHM J 2012	
RCS47	HRFT102JCA	R CHIP	1/10 1K OHM J 2012	
RCS48	HRFT102JCA	R CHIP	1/10 1K OHM J 2012	
RCS49	HRFT362JCA	R CHIP	1/10 3.6K OHM J 2012	
RCS60	HRFT103JCA	R CHIP	1/10 10K OHM J 2012	
RCS61	HRFT103JCA	R CHIP	1/10 10K OHM J 2012	
RCS64	HRFT103JCA	R CHIP	1/10 10K OHM J 2012	
RCS65	HRFT273JCA	R CHIP	1/10 27K OHM J 2012	
RCS66	HRFT201JCA	R CHIP	1/10 200 OHM J 2012	
RCS67	HRFT273JCA	R CHIP	1/10 27K OHM J 2012	
RCS68	HRFT201JCA	R CHIP	1/10 200 OHM J 2012	
RCS71	HRFT103JCA	R CHIP	1/10 10K OHM J 2012	
RCS72	HRFT103JCA	R CHIP	1/10 10K OHM J 2012	
RCS73	HRFT103JCA	R CHIP	1/10 10K OHM J 2012	
RCS74	HRFT103JCA	R CHIP	1/10 10K OHM J 2012	
RCS81	HRFT182JCA	R CHIP	1/10 1.8K OHM J 2012	
RCS82	HRFT182JCA	R CHIP	1/10 1.8K OHM J 2012	
RCS84	HRFT332JCA	R CHIP	1/10 3.3K OHM J 2012	
RCS85	HRFT473JCA	R CHIP	1/10 47K OHM J 2012	
RCS86	HRFT103JCA	R CHIP	1/10 10K OHM J 2012	
RCS87	HRFT471JCA	R CHIP	1/10 470 OHM J 2012	
RCS93	HRFT273JCA	R CHIP	1/10 27K OHM J 2012	
RCS94	HRFT103JCA	R CHIP	1/10 10K OHM J 2012	
RCT09	HRFT472JCA	R CHIP	1/10 4.7K OHM J 2012	
RCT11	HRFT911JCA	R CHIP	1/10 910 OHM J 2012	
RCT12	HRFT132JCA	R CHIP	1/10 1.3K OHM J 2012	
RCT13	HRFT202JCA	R CHIP	1/10 2K OHM J 2012	
RCT14	HRFT332JCA	R CHIP	1/10 3.3K OHM J 2012	
RCT15	HRFT472JCA	R CHIP	1/10 4.7K OHM J 2012	
RCT17	HRFT911JCA	R CHIP	1/10 910 OHM J 2012	
RCT18	HRFT132JCA	R CHIP	1/10 1.3K OHM J 2012	
RCT19	HRFT202JCA	R CHIP	1/10 2K OHM J 2012	
RCT20	HRFT332JCA	R CHIP	1/10 3.3K OHM J 2012	
RCU01	HRFT205JCA	R CHIP	1/10 2M OHM J 2012	
RCU03	HRFT512JCA	R CHIP	1/10 5.1K OHM J 2012	
RCU05	HRFT512JCA	R CHIP	1/10 5.1K OHM J 2012	
RCU06	HRFT362JCA	R CHIP	1/10 3.6K OHM J 2012	
RCU08	HRFT272JCA	R CHIP	1/10 2.7K OHM J 2012	

LOC	PART CODE	PART NAME	DESCRIPTION	REMARK
RCU09	HRFT912JCA	R CHIP	1/10 9.1K OHM J 2012	
RCU10	HRFT682JCA	R CHIP	1/10 6.8K OHM J 2012	
RCU11	HRFT272JCA	R CHIP	1/10 2.7K OHM J 2012	
RCU12	HRFT821JCA	R CHIP	1/10 820 OHM J 2012	
RCU13	HRFT512JCA	R CHIP	1/10 5.1K OHM J 2012	
RCU14	HRFT152JCA	R CHIP	1/10 1.5K OHM J 2012	
RCU15	HRFT123JCA	R CHIP	1/10 12K OHM J 2012	
RCU16	HRFT822JCA	R CHIP	1/10 8.2K OHM J 2012	
RCU17	HRFT334JCA	R CHIP	1/10 330K OHM J 2012	
RCU18	HRFT181JCA	R CHIP	1/10 180 OHM J 2012	
RCU19	HRFT273JCA	R CHIP	1/10 27K OHM J 2012	
RCU20	HRFT122JCA	R CHIP	1/10 1.2K OHM J 2012	
RCU23	HRFT152JCA	R CHIP	1/10 1.5K OHM J 2012	
RCU24	HRFT229JCA	R CHIP	1/10 2.2 OHM J 2012	
RCU25	HRFT229JCA	R CHIP	1/10 2.2 OHM J 2012	
RCU27	HRFT103JCA	R CHIP	1/10 10K OHM J 2012	
RCU28	HRFT512JCA	R CHIP	1/10 5.1K OHM J 2012	
RCU29	HRFT103JCA	R CHIP	1/10 10K OHM J 2012	
RCY09	HRFT153JCA	R CHIP	1/10 15K OHM J 2012	
RCY10	HRFT152JCA	R CHIP	1/10 1.5K OHM J 2012	
RCY11	HRFT472JCA	R CHIP	1/10 4.7K OHM J 2012	
RCY12	HRFT153JCA	R CHIP	1/10 15K OHM J 2012	
RCY14	HRFT511JCA	R CHIP	1/10 510 OHM J 2012	
RCY15	HRFT181JCA	R CHIP	1/10 180 OHM J 2012	
RCY16	HRFT221JCA	R CHIP	1/10 220 OHM J 2012	
RCY17	HRFT102JCA	R CHIP	1/10 1K OHM J 2012	
RCY19	HRFT103JCA	R CHIP	1/10 10K OHM J 2012	
RCY20	HRFT182JCA	R CHIP	1/10 1.8K OHM J 2012	
RCY24	HRFT684JCA	R CHIP	1/10 680K OHM J 2012	
RCY27	HRFT122JCA	R CHIP	1/10 1.2K OHM J 2012	
RCY29	HRFT822JCA	R CHIP	1/10 8.2K OHM J 2012	
RCY30	HRFT102JCA	R CHIP	1/10 1K OHM J 2012	
RCY31	HRFT102JCA	R CHIP	1/10 1K OHM J 2012	
RCY32	HRFT332JCA	R CHIP	1/10 3.3K OHM J 2012	
RCY33	HRFT363JCA	R CHIP	1/10 36K OHM J 2012	
RCY34	HRFT202JCA	R CHIP	1/10 2K OHM J 2012	
RCY37	HRFT472JCA	R CHIP	1/10 4.7K OHM J 2012	
RCY38	HRFT103JCA	R CHIP	1/10 10K OHM J 2012	
RCY40	HRFT102JCA	R CHIP	1/10 1K OHM J 2012	
RCY43	HRFT204JCA	R CHIP	1/10 200K OHM J 2012	
RCZ01	HRFT511JCA	R CHIP	1/10 510 OHM J 2012	
ZZ200	PTMPJ0H611	PCB MAIN (RHU) AS	DVQ-10H1FCN	
C132	CEXF1C471V	C ELECTRO	16V RSS 470MF (8X12)TP	
C133	CEXF1C471V	C ELECTRO	16V RSS 470MF (8X12)TP	
C134	CEXF1C471V	C ELECTRO	16V RSS 470MF (8X12)TP	
C135	CEXF1C471V	C ELECTRO	16V RSS 470MF (8X12)TP	
C505	CEXF1C471V	C ELECTRO	16V RSS 470MF (8X12)TP	
C525	CEXF1C471V	C ELECTRO	16V RSS 470MF (8X12)TP	
C605	CEXF1E331V	C ELECTRO	25V RSS 330MF (10X12.5)TP	
C606	CEXF1C471V	C ELECTRO	16V RSS 470MF (8X12)TP	
CS15	CEXF1C102V	C ELECTRO	16V RSS 1000MF (10X20) TP	
CS62	CEXF1C471V	C ELECTRO	16V RSS 470MF (8X12)TP	
CS66	CEXF1C102V	C ELECTRO	16V RSS 1000MF (10X20) TP	
ZZ200	PTMPJBH611	PCB MAIN M-10 AS	DVQ-10H1FCN	

SERVICE PARTS LIST

LOC	PART CODE	PART NAME	DESCRIPTION	REMARK
P601	4859231625	CONN WAFER	YW025-03 (STICK)	
PS04	4859231825	CONN WAFER	YW025-05 (STICK)	
R116	RS02Z159JS	R M-OXIDE FILM	2W 1.5 OHM J SMALL	
R117	RS02Z159JS	R M-OXIDE FILM	2W 1.5 OHM J SMALL	
R604	RS02Z339JS	R M-OXIDE FILM	2W 3.3 OHM J SMALL	
RS83	RS02Z100JS	R M-OXIDE FILM	2W 10 OHM J SMALL	
ZZ200	PTMPJRH611	PCB MAIN RADIAL AS	DVQ-10H1FCN	
C101	CMXM2A103J	C MYLAR	100V 0.01MF J (TP)	
C102	CMXM2A333J	C MYLAR	100V 0.033MF J (TP)	
C105	CEXF1C101A	C ELECTRO	16V RSM 100MF (6.3X7) TP	
C106	CEXF1H109A	C ELECTRO	50V RSM 1MF (4X7) TP	
C110	CEXF1H478A	C ELECTRO	50V RSM 0.47MF 4X7	
C111	CEXF1H108A	C ELECTRO	50V RSM 0.1MF 4X7	
C116	CEXF1H229A	C ELECTRO	50V RSM 2.2MF (4X7) TP	
C117	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP	
C121	CEXF1C101A	C ELECTRO	16V RSM 100MF (6.3X7) TP	
C136	CEXF1H229V	C ELECTRO	50V RSS 2.2MF (5X11) TP	
C507	CMXL1J224J	C MYLAR	63V MEU 0.22MF J (TP)	
C508	CMXL1J224J	C MYLAR	63V MEU 0.22MF J (TP)	
C509	CEXF1C101A	C ELECTRO	16V RSM 100MF (6.3X7) TP	
C511	CEXF1H109A	C ELECTRO	50V RSM 1MF (4X7) TP	
C512	CMXM2A333J	C MYLAR	100V 0.033MF J (TP)	
C517	CEXF1H109A	C ELECTRO	50V RSM 1MF (4X7) TP	
C518	CMXM2A473J	C MYLAR	100V 0.047MF J (TP)	
C519	CEXF1H478A	C ELECTRO	50V RSM 0.47MF 4X7	
C520	CEXF1H109A	C ELECTRO	50V RSM 1MF (4X7) TP	
C522	CEXF1C100A	C ELECTRO	16V RSM 10MF 5X7	
C526	CEXF1H229A	C ELECTRO	50V RSM 2.2MF (4X7) TP	
C527	CEXF1C100A	C ELECTRO	16V RSM 10MF 5X7	
C528	CEXF1H109A	C ELECTRO	50V RSM 1MF (4X7) TP	
C529	CEXF1H229A	C ELECTRO	50V RSM 2.2MF (4X7) TP	
C551	CEXF1H479A	C ELECTRO	50V RSM 4.7MF 4X7	
C602	CEXF1H108A	C ELECTRO	50V RSM 0.1MF 4X7	
C604	CEXF1C101A	C ELECTRO	16V RSM 100MF (6.3X7) TP	
CS14	CEXF1H109A	C ELECTRO	50V RSM 1MF (4X7) TP	
CS17	CEXF1C470A	C ELECTRO	16V RSM 47MF (5X7) TP	
CS28	CEXF1C470A	C ELECTRO	16V RSM 47MF (5X7) TP	
CS30	CEXF1H109A	C ELECTRO	50V RSM 1MF (4X7) TP	
CS39	CEXF1C470A	C ELECTRO	16V RSM 47MF (5X7) TP	
CS42	CEXF1H109A	C ELECTRO	50V RSM 1MF (4X7) TP	
CS51	CEXF1C470A	C ELECTRO	16V RSM 47MF (5X7) TP	
CS52	CEXF1C470A	C ELECTRO	16V RSM 47MF (5X7) TP	
CS57	CEXF1C100A	C ELECTRO	16V RSM 10MF 5X7	
CS59	CEXF1C470A	C ELECTRO	16V RSM 47MF (5X7) TP	
CS70	CEXF1H109A	C ELECTRO	50V RSM 1MF (4X7) TP	
CT01	CEXF1C470V	C ELECTRO	16V RSS 47MF (5X11) TP	
CU01	CEXF1C470V	C ELECTRO	16V RSS 47MF (5X11) TP	
CU04	CEXF1C220A	C ELECTRO	16V RSM 22MF (5X7)	
CU05	CEXF1C470A	C ELECTRO	16V RSM 47MF (5X7) TP	
CU07	CEXF1H479A	C ELECTRO	50V RSM 4.7MF 4X7	
CU16	CEXF1H479A	C ELECTRO	50V RSM 4.7MF 4X7	
CU19	CEXF1C470V	C ELECTRO	16V RSS 47MF (5X11) TP	
CU20	CEXF1C470A	C ELECTRO	16V RSM 47MF (5X7) TP	
CU21	CMXM2A103J	C MYLAR	100V 0.01MF J (TP)	

LOC	PART CODE	PART NAME	DESCRIPTION	REMARK
CU22	CMXM2A333J	C MYLAR	100V 0.033MF J (TP)	
CU23	CMXM2A223J	C MYLAR	100V 0.022MF J TP	
CU30	CEXF1C220A	C ELECTRO	16V RSM 22MF (5X7)	
CY01	CEXF1H109A	C ELECTRO	50V RSM 1MF (4X7) TP	
CY06	CEXF1H109V	C ELECTRO	50V RSS 1MF (5X11) TP	
CY07	CEXF1C101A	C ELECTRO	16V RSM 100MF (6.3X7) TP	
CY09	CEXF1C220A	C ELECTRO	16V RSM 22MF (5X7)	
CY10	CEXF1C100A	C ELECTRO	16V RSM 10MF 5X7	
CY11	CEXF1H109A	C ELECTRO	50V RSM 1MF (4X7) TP	
CY14	CEXF1C100A	C ELECTRO	16V RSM 10MF 5X7	
CY15	CEXF1H109A	C ELECTRO	50V RSM 1MF (4X7) TP	
CY16	CEXF1H109A	C ELECTRO	50V RSM 1MF (4X7) TP	
CY17	CEXF1C100A	C ELECTRO	16V RSM 10MF 5X7	
CY18	CEXF1H109A	C ELECTRO	50V RSM 1MF (4X7) TP	
CY19	CEXF1C101V	C ELECTRO	16V RSS 100MF (6.3X11) TP	
CY23	CEXF1C101A	C ELECTRO	16V RSM 100MF (6.3X7) TP	
CY26	CEXF1H109A	C ELECTRO	50V RSM 1MF (4X7) TP	
CY27	CEXF1H229A	C ELECTRO	50V RSM 2.2MF (4X7) TP	
CY29	CEXF1H109A	C ELECTRO	50V RSM 1MF (4X7) TP	
CY31	CEXF1H109A	C ELECTRO	50V RSM 1MF (4X7) TP	
CY32	CEXF1C100A	C ELECTRO	16V RSM 10MF 5X7	
CY37	CEXF1H109A	C ELECTRO	50V RSM 1MF (4X7) TP	
CY39	CEXF1C101A	C ELECTRO	16V RSM 100MF (6.3X7) TP	
CZ01	CEXF1C101A	C ELECTRO	16V RSM 100MF (6.3X7) TP	
IS04	1K1A7033AP	IC RESET	KIA7033AP	
IS05	1K1A7042AP	IC REGULATOR	KIA7042AP	
LU02	5CPX101J--	COIL PEAKING	PL 100UH J (TAPPING)	
LU03	5CPX103J--	COIL PEAKING	10MH 5MM J RADIAL	
LY03	5CPX560J--	COIL PEAKING	56UH J (RADIAL)	
Q503	TKTA1266Y-	TR	KTA1266Y (TP)	
Q504	TKTC3198Y-	TR	KTC3198Y	
Q505	TKTC3198Y-	TR	KTC3198Y	
Q601	TKTC3198Y-	TR	KTC3198Y	
QS03	TKTC3198Y-	TR	KTC3198Y	
QT01	TKTC3198Y-	TR	KTC3198Y	
QT02	TKTC3198Y-	TR	KTC3198Y	
QT03	TKTC3198Y-	TR	KTC3198Y	
QT04	TKTC3198Y-	TR	KTC3198Y	
QU01	TKRC102M--	TR	KRC 102-M (TAPPING)	
QU02	TKTA1266Y-	TR	KTA1266Y (TP)	
QU03	TKTA1266Y-	TR	KTA1266Y (TP)	
QU06	TKTC3202Y-	TR	KTC3202Y (TP)	
QY01	TKTA1266Y-	TR	KTA1266Y (TP)	
QY02	TKTA1266Y-	TR	KTA1266Y (TP)	
SWT01	5S50101Z90	SW TACT	THVV502GDA	
SWT02	5S50101Z90	SW TACT	THVV502GDA	
SWT03	5S50101Z90	SW TACT	THVV502GDA	
SWT04	5S50101Z90	SW TACT	THVV502GDA	
SWT05	5S50101Z90	SW TACT	THVV502GDA	
SWT06	5S50101Z90	SW TACT	THVV502GDA	
SWT07	5S50101Z90	SW TACT	THVV502GDA	
SWT08	5S50101Z90	SW TACT	THVV502GDA	
SWT09	5S50101Z90	SW TACT	THVV502GDA	
SWT10	5S50101Z90	SW TACT	THVV502GDA	

SERVICE PARTS LIST

LOC	PART CODE	PART NAME	DESCRIPTION	REMARK
X501	5XEX3R579C	CRYSTAL QUARTZ	HC-49/U 3.579545M (TP)	
XY01	5XEX3R579B	CRYSTAL QUARTZ	HC-49U 3.579545MHZ 15PPM	
ZZ200	PTMPJAH611	PCB MAIN AXIAL AS	DVQ-10H1FCN	
A001	4859816191	PCB MAIN	330X246 S1B	
C112	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z	
C137	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z	
C501	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z	
C502	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z	
C503	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z	
CS10	CCZF1H103Z	C CERA	50V F 0.01MF Z	
CS13	CCZF1H103Z	C CERA	50V F 0.01MF Z	
CS18	CZCH1H180J	C CERA	50V CH 18PF J (AXIAL)	
CS19	CZCH1H180J	C CERA	50V CH 18PF J (AXIAL)	
CS20	CZCH1H240J	C CERA	50V CH 24PF J AXIAL	
CS21	CZCH1H240J	C CERA	50V CH 24PF J AXIAL	
CS33	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z	
CS40	CCZB1H223K	C CERA	HIBK 50V 0.022MF K AXL 52	
CS41	CCZB1H223K	C CERA	HIBK 50V 0.022MF K AXL 52	
CU06	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z	
CU12	CCZB1H223K	C CERA	HIBK 50V 0.022MF K AXL 52	
CY22	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z	
CY24	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z	
CY30	CCZB1H223K	C CERA	HIBK 50V 0.022MF K AXL 52	
D101	DUZ33B----	DIODE ZENER	UZ-33B	
D102	D1N4148---	DIODE	1N4148 (TAPPING)	
D501	D1N4148---	DIODE	1N4148 (TAPPING)	
D502	D1N4148---	DIODE	1N4148 (TAPPING)	
D503	D1N4148---	DIODE	1N4148 (TAPPING)	
D504	D1N4148---	DIODE	1N4148 (TAPPING)	
DS01	D1N4004S--	DIODE	1N4004S	
DS02	D1N4148---	DIODE	1N4148 (TAPPING)	
DS04	DUZ6R8BM--	DIODE ZENER	UZ-6.8BM	
DS07	D1N4148---	DIODE	1N4148 (TAPPING)	
DT03	DUZ5R6BM--	DIODE ZENER	UZ-5.6BM	
DT04	DUZ5R6BM--	DIODE ZENER	UZ-5.6BM	
J001	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J003	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J004	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J005	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J006	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J007	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J008	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J009	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J010	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J011	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J012	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J013	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J014	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J015	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J016	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J018	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J019	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J020	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J021	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	

LOC	PART CODE	PART NAME	DESCRIPTION	REMARK
J023	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J024	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J025	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J026	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J027	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J028	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J029	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J030	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J031	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J032	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J033	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J034	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J036	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J037	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J038	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J039	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J040	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J041	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J042	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J043	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J044	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J045	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J046	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J047	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J048	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J049	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J050	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J051	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J053	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J054	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J055	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J056	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J057	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J058	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J059	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J060	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J061	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J062	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J063	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J064	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J065	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J067	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J068	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J069	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J070	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J071	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J072	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J073	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J074	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J075	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J076	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J077	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J078	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J079	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	

LOC	PART CODE	PART NAME	DESCRIPTION	REMARK
J080	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J081	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J082	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J083	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J084	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J085	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J086	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J087	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J088	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J089	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J090	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J091	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J092	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J093	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J094	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J095	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J096	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J097	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J098	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J099	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J100	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J101	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J102	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J103	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J104	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J105	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J106	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J107	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J108	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J109	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J110	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J111	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J112	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J113	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J114	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J115	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J116	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J117	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J118	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J119	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J120	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J121	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J122	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J123	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J124	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J125	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J126	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J127	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J128	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J129	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J130	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J131	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J132	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J133	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	

LOC	PART CODE	PART NAME	DESCRIPTION	REMARK
J134	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J135	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J136	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J138	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J139	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J140	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J141	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J142	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J143	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J144	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J145	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J146	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J147	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J148	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J149	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J150	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J151	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J152	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J153	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J154	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J155	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J156	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J157	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J158	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J159	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J160	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J161	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J162	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J163	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J164	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J166	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J167	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J168	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J169	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J170	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J171	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J172	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J173	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J180	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J181	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J182	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J183	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J184	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
L101	5CPZ560K04	COIL PEAKING	56UH K (AXIAL 10.5MM)	
L103	5CPZ569K02	COIL PEAKING	5.6UH K (AXIAL 3.5MM)	
L501	5CPZ220K02	COIL PEAKING	22UH K (AXIAL 3.5MM)	
L502	5CPZ569K04	COIL PEAKING	5.6UH K (AXIAL 10.5MM)	
L503	5CPZ150K02	COIL PEAKING	15UH K (AXIAL 3.5MM)	
LS01	5CPZ159M02	COIL PEAKING	1.5UH 3.5MM M (LAL02TB)	
LS02	5CPZ560K02	COIL PEAKING	56UH K (AXIAL 3.5MM)	
LS03	5CPZ560K02	COIL PEAKING	56UH K (AXIAL 3.5MM)	
LU01	5CPZ560K02	COIL PEAKING	56UH K (AXIAL 3.5MM)	
LY01	5CPZ560K04	COIL PEAKING	56UH K (AXIAL 10.5MM)	
LY02	5CPZ560K02	COIL PEAKING	56UH K (AXIAL 3.5MM)	

SERVICE PARTS LIST

LOC	PART CODE	PART NAME	DESCRIPTION	REMARK
LY04	5CPZ560K02	COIL PEAKING	56UH K (AXIAL 3.5MM)	
LZ01	5CPZ560K04	COIL PEAKING	56UH K (AXIAL 10.5MM)	
R106	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R107	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R110	RD-4Z392J-	R CARBON FILM	1/4 3.9K OHM J	
R112	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R113	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R114	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J	
R115	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J	
R504	RD-4Z121J-	R CARBON FILM	1/4 120 OHM J	
R505	RD-AZ331J-	R CARBON FILM	1/6 330 OHM J	
R506	RD-AZ331J-	R CARBON FILM	1/6 330 OHM J	
R507	RD-AZ331J-	R CARBON FILM	1/6 330 OHM J	
R508	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R511	RD-AZ151J-	R CARBON FILM	1/6 150 OHM J	
R518	RD-AZ123J-	R CARBON FILM	1/6 12K OHM J	
R532	RD-4Z100J-	R CARBON FILM	1/4 10 OHM J	
R544	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
R601	RD-AZ622J-	R CARBON FILM	1/6 6.2K OHM J	
R602	RD-AZ202J-	R CARBON FILM	1/6 2K OHM J	
R603	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
R605	RD-2Z331J-	R CARBON FILM	1/2 330 OHM J	
R607	RD-AZ471J-	R CARBON FILM	1/6 470 OHM J	
R608	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R609	RD-AZ473J-	R CARBON FILM	1/6 47K OHM J	
RA01	RD-AZ104J-	R CARBON FILM	1/6 100K OHM J	
RA02	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
RS01	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
RS02	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
RS13	RD-4Z121J-	R CARBON FILM	1/4 120 OHM J	
RS17	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
RS18	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
RS19	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
RS20	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
RS21	RD-AZ274J-	R CARBON FILM	1/6 270K OHM J	
RS22	RD-AZ473J-	R CARBON FILM	1/6 47K OHM J	
RS23	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
RS24	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
RS25	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
RS26	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
RS27	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
RS28	RD-AZ223J-	R CARBON FILM	1/6 22K OHM J	
RS29	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
RS35	RD-AZ751J-	R CARBON FILM	1/6 750 OHM J	
RS38	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
RS39	RD-AZ471J-	R CARBON FILM	1/6 470 OHM J	
RS40	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
RS41	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J	
RS42	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
RS43	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
RS44	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
RS45	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
RS50	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
RS51	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	

LOC	PART CODE	PART NAME	DESCRIPTION	REMARK
RS52	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J	
RS53	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J	
RS54	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
RS55	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
RS56	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J	
RS57	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J	
RS58	RD-AZ471J-	R CARBON FILM	1/6 470 OHM J	
RS59	RD-AZ471J-	R CARBON FILM	1/6 470 OHM J	
RS62	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
RS63	RD-AZ473J-	R CARBON FILM	1/6 47K OHM J	
RS69	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
RS70	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
RS75	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
RS76	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
RS77	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J	
RS78	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
RS79	RD-AZ332J-	R CARBON FILM	1/6 3.3K OHM J	
RS88	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
RS90	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
RS91	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
RS92	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
RT01	RD-AZ240J-	R CARBON FILM	1/6 24 OHM J	
RT02	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J	
RT03	RD-AZ331J-	R CARBON FILM	1/6 330 OHM J	
RT04	RD-AZ331J-	R CARBON FILM	1/6 330 OHM J	
RT05	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J	
RT06	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
RT07	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
RT08	RD-AZ331J-	R CARBON FILM	1/6 330 OHM J	
RT10	RD-AZ681J-	R CARBON FILM	1/6 680 OHM J	
RT16	RD-AZ681J-	R CARBON FILM	1/6 680 OHM J	
RU02	RD-AZ563J-	R CARBON FILM	1/6 56K OHM J	
RU04	RD-AZ753J-	R CARBON FILM	1/6 75K OHM J	
RU07	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
RU21	RD-AZ223J-	R CARBON FILM	1/6 22K OHM J	
RU22	RD-AZ470J-	R CARBON FILM	1/6 47 OHM J	
RU26	RD-AZ223J-	R CARBON FILM	1/6 22K OHM J	
RU30	RD-AZ561J-	R CARBON FILM	1/6 560 OHM J	
RV01	RD-AZ750J-	R CARBON FILM	1/6 75 OHM J	
RV02	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
RY01	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
RY04	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
RY05	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
RY06	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
RY07	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
RY08	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
RY13	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
RY23	RD-AZ222J-	R CARBON FILM	1/6 2.2K OHM J	
RY26	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
RY28	RD-AZ182J-	R CARBON FILM	1/6 1.8K OHM J	
RY36	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
RY39	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
RY42	RD-AZ184J-	R CARBON FILM	1/6 180K OHM J	
ZZ300	PTPWMSH611	PCB POWER MANUAL AS	DVQ-10H1FCN	

SERVICE PARTS LIST

LOC	PART CODE	PART NAME	DESCRIPTION	REMARK
C402	CMYE2D274J	C MYLAR	200V PU 0.27MF J	
C416	CMYH3C692J	C MYLAR	1.6KV BUP 6900PF J	⚠
C451	CMYL2E475J	C MYLAR	250V MEU 4.7MF J	
C801	CL1UC3474M	C LINE ACROSS	0.47MF 1J(UCVSNDF/SV)+Q/O	⚠
C804	CEYN2D331P	C ELECTRO	200V LHS 330MF	
C805	CMYH3A472J	C MYLAR	1KV BUP 4700PF J	
D822	DRGP30J---	DIODE	RGP30J	
D855	DRGP30J---	DIODE	RGP30J	
F801	5F1GB4021L	FUSE GLASS TUBE	UL/CSA TL 4A 125V MF51	⚠
I301	PTD2SW7100	HEAT SINK ASS`Y	1LA78041-- + 7174300811	
00001	1LA78041--	IC VERTICAL	LA78041	
0000A	4857027100	HEAT SINK	SPCC T1.0+SN	
0000B	7174300811	SCREW TAPPTITE	TT2 RND 3X8 MFZN	
I451	TTF341M---	THYRISTOR	TF341M	
I801	1LTV817C--	IC PHOTO COUPLER	LTV-817C	⚠
I802	1LTV817C--	IC PHOTO COUPLER	LTV-817C	⚠
I807	1KA7500C--	IC	KA7500C	
JP801	4859101110	JACK DC	YSC-1535	
L801	5PLF24A1--	FILTER LINE	LF-24A1	⚠
L850	58C0000132	COIL CHOKE	CH-100W	
M381	4851949100	FRAME MAIN PCB AS	3818800+7249500	
M381A	7178301011	SCREW TAPPTITE	TT2 WAS 3X10 MFZN	
M681	4853535500	HOLDER CORD	NYLON 66	
P901	4859284620	CONN WAFER	SMW250-05	
P902	4859284520	CONN WAFER	SMW250-04	
PA902	4850704N26	CONNECTOR	SMH250-04+YBNH250+ULW=200	
PWC1	4859907910	CORD POWER AS	ME301P+TER=1830	⚠
Q402	PTA2SW7201	HEAT SINK ASS`Y	T2SD2627YB + 7174300811	⚠
00001	T2SD2627YB	TR	2SD2627LS-YB	
0000A	4857027201	HEAT SINK	AL T1.0	
0000B	7174300811	SCREW TAPPTITE	TT2 RND 3X8 MFZN	
Q801	PTQ2SW4510	HEAT SINK ASS`Y	T2SK2564-- + 7174300811	⚠
00001	T2SK2564--	FET	2SK2564	
0000A	4857024510	HEAT SINK	AL EX	
0000B	7174300811	SCREW TAPPTITE	TT2 RND 3X8 MFZN	
0000C	4856815900	CLAMP WIRE	EGI T0.4+PVC COATING	
0000D	7174301011	SCREW TAPPTITE	TT2 RND 3X10 MFZN	
Q851	PTD2SW7603	HEAT SINK ASS`Y	TFQPF85N06 + 7174300811	
00001	TFQPF85N06	FET	FQPF85N06	
0000A	4857027603	HEAT SINK	AL EX	
0000B	7174300811	SCREW TAPPTITE	TT2 RND 3X8 MFZN	
R801	DSVC471D14	VARISTOR	SVC471D14A	⚠
R802	RX07B229JQ	R CEMENT	7W 2.2 0HM J BEN 25MM 4P	⚠
SCT01	4859303930	SOCKET CRT	ISMG03S INCHANG	
T401	50D10A3---	TRANS DRIVE	TD-10A3	
T402	50H0000246	FBT	TCG-30U63	⚠
T801	50M3541B5-	TRANS SMPS	TSM-3541B5	
T802	50M3541B2-	TRANS SMPS	TSM-3541B2	⚠
ZZ200	PTPWJ0H611	PCB POWER ODD SHAPE (RHU) AS	DVQ-10H1FCN	
C308	CEXF1E102V	C ELECTRO	25V RSS 1000MF (13X20) TP	
C401	CEXF2C470V	C ELECTRO	160V RSS 47MF (13X25) TP	
C404	CEXF2E100V	C ELECTRO	250V RSS 10MF (10X20) TP	
C407	CEXF1C102V	C ELECTRO	16V RSS 1000MF (10X20) TP	
C410	CEXF1V471V	C ELECTRO	35V RSS 470MF (10X20) TP	

LOC	PART CODE	PART NAME	DESCRIPTION	REMARK
C453	CEXF2E479V	C ELECTRO	250V RSS 4.7MF (10X16)TP	
C821	CEXF2C101V	C ELECTRO	160V RSS 100MF (16X25) TP	
C823	CEXF1C102V	C ELECTRO	16V RSS 1000MF (10X20) TP	
C824	CEXF1E471V	C ELECTRO	25V RSS 470MF (10X16) TP	
C829	CEXF1C102V	C ELECTRO	16V RSS 1000MF (10X20) TP	
C851	CEXF1E222C	C ELECTRO	25V RUS 2200MF (16X25) TP	
C888	CH1BEE472M	C CERA AC	U/C/V 2.5KV 4700PF TP	
C889	CH1BEE472M	C CERA AC	U/C/V 2.5KV 4700PF TP	⚠
C965	CH1BEE472M	C CERA AC	U/C/V 2.5KV 4700PF TP	⚠
L804	58Q0000093	COIL DELAY LINE	RS208	
ZZ200	PTPWJBH611	PCB POWER M-10 AS	DVQ-10H1FCN	
E001	4856310300	EYE LET	BSR T0.2 (R1.6)	
E002	4856310300	EYE LET	BSR T0.2 (R1.6)	
E003	4856310300	EYE LET	BSR T0.2 (R1.6)	
E004	4856310300	EYE LET	BSR T0.2 (R1.6)	
E005	4856310600	EYE LET	BSR T0.2 (R2.3)	
E006	4856310600	EYE LET	BSR T0.2 (R2.3)	
E007	4856310300	EYE LET	BSR T0.2 (R1.6)	
E009	4856310300	EYE LET	BSR T0.2 (R1.6)	
E010	4856310300	EYE LET	BSR T0.2 (R1.6)	
E011	4856310300	EYE LET	BSR T0.2 (R1.6)	
E012	4856310300	EYE LET	BSR T0.2 (R1.6)	
E013	4856310300	EYE LET	BSR T0.2 (R1.6)	
E014	4856310300	EYE LET	BSR T0.2 (R1.6)	
E015	4856310300	EYE LET	BSR T0.2 (R1.6)	
E016	4856310300	EYE LET	BSR T0.2 (R1.6)	
E017	4856310300	EYE LET	BSR T0.2 (R1.6)	
E018	4856310300	EYE LET	BSR T0.2 (R1.6)	
E019	4856310300	EYE LET	BSR T0.2 (R1.6)	
E020	4856310300	EYE LET	BSR T0.2 (R1.6)	
E021	4856310300	EYE LET	BSR T0.2 (R1.6)	
E022	4856310600	EYE LET	BSR T0.2 (R2.3)	
E023	4856310600	EYE LET	BSR T0.2 (R2.3)	
E024	4856310600	EYE LET	BSR T0.2 (R2.3)	
E025	4856310600	EYE LET	BSR T0.2 (R2.3)	
E026	4856310300	EYE LET	BSR T0.2 (R1.6)	
E027	4856310300	EYE LET	BSR T0.2 (R1.6)	
E028	4856310300	EYE LET	BSR T0.2 (R1.6)	
E029	4856310300	EYE LET	BSR T0.2 (R1.6)	
E030	4856310300	EYE LET	BSR T0.2 (R1.6)	
E031	4856310300	EYE LET	BSR T0.2 (R1.6)	
E032	4856310300	EYE LET	BSR T0.2 (R1.6)	
E033	4856310300	EYE LET	BSR T0.2 (R1.6)	
E034	4856310300	EYE LET	BSR T0.2 (R1.6)	
E035	4856310600	EYE LET	BSR T0.2 (R2.3)	
E036	4856310600	EYE LET	BSR T0.2 (R2.3)	
E037	4856310600	EYE LET	BSR T0.2 (R2.3)	
E038	4856310600	EYE LET	BSR T0.2 (R2.3)	
E039	4856310600	EYE LET	BSR T0.2 (R2.3)	
E040	4856310600	EYE LET	BSR T0.2 (R2.3)	
E041	4856310600	EYE LET	BSR T0.2 (R2.3)	
E042	4856310600	EYE LET	BSR T0.2 (R2.3)	
E043	4856310600	EYE LET	BSR T0.2 (R2.3)	
N001	4857417500	TERM PIN	DA-IB0214(D2.3/DY PIN)	

SERVICE PARTS LIST

LOC	PART CODE	PART NAME	DESCRIPTION	REMARK
N002	4857417500	TERM PIN	DA-IB0214(D2.3/DY PIN)	
N003	4857417500	TERM PIN	DA-IB0214(D2.3/DY PIN)	
N004	4857417500	TERM PIN	DA-IB0214(D2.3/DY PIN)	
N005	4857417500	TERM PIN	DA-IB0214(D2.3/DY PIN)	
N006	4857417500	TERM PIN	DA-IB0214(D2.3/DY PIN)	
P402	485923512S	CONN WAFER	YW025-08 (STICK)	
P403	485923162S	CONN WAFER	YW025-03 (STICK)	
P803	485923522S	CONN WAFER	YW025-09 (STICK)	
R302	RS01Z331J-	R M-OXIDE FILM	1W 330 OHM J (TAPPING)	
R305	RS02Z471JS	R M-OXIDE FILM	2W 470 OHM J SMALL	
R306	RS02Z471JS	R M-OXIDE FILM	2W 470 OHM J SMALL	
R307	RS01Z129J-	R M-OXIDE FILM	1W 1.2 OHM J (TAPPING)	
R401	RS02Z101JS	R M-OXIDE FILM	2W 100 OHM J SMALL	
R402	RS02Z150JS	R M-OXIDE FILM	2W 15 OHM J SMALL	
R403	RS01Z369J-	R M-OXIDE FILM	1W 3.6 OHM J (TAPPING)	
R404	RS01Z229J-	R M-OXIDE FILM	1W 2.2 OHM J (TAPPING)	
R407	RS02Z109JS	R M-OXIDE FILM	2W 1 OHM J SMALL	
R414	RS01Z562J-	R M-OXIDE FILM	1W 5.6K OHM J (TAPPING)	
R417	RS02Z101JS	R M-OXIDE FILM	2W 100 OHM J SMALL	
R453	RS01Z229J-	R M-OXIDE FILM	1W 2.2 OHM J (TAPPING)	
R807	RS02Z228JS	R M-OXIDE FILM	2W 0.22 OHM J SMALL	
R820	RS02Z109JS	R M-OXIDE FILM	2W 1 OHM J SMALL	
R836	RS02Z473JS	R M-OXIDE FILM	2W 47K OHM J SMALL	
R841	RS02Z473JS	R M-OXIDE FILM	2W 47K OHM J SMALL	
R905	RS02Z153JS	R M-OXIDE FILM	2W 15K OHM J SMALL	
R906	RS02Z153JS	R M-OXIDE FILM	2W 15K OHM J SMALL	
R907	RS02Z153JS	R M-OXIDE FILM	2W 15K OHM J SMALL	
ZZ200	PTPWJRH611	PCB POWER RADIAL AS	DVQ-10H1FCN	
C301	CEXF1H479V	C ELECTRO	50V RSS 4.7MF (5X11) TP	
C302	CEXF1V101V	C ELECTRO	35V RSS 100MF (8X11.5) TP	
C303	CXSL2H100D	C CERA	500V SL 10PF D (TAPPING)	
C304	CMXM2A103J	C MYLAR	100V 0.01MF J (TP)	
C305	CMXM2A104J	C MYLAR	100V 0.1MF J (TP)	
C309	CEXD1H229Q	C ELECTRO	50V RT 2.2MF (6.3X11) TP	
C310	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP	
C405	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP	
C409	CMXM2A104J	C MYLAR	100V 0.1MF J (TP)	
C412	CMXM2A103J	C MYLAR	100V 0.01MF J (TP)	
C413	CCXB2H102K	C CERA	500V B 1000PF K (TAPPING)	
C415	CEXF2C109V	C ELECTRO	160V RSS 1MF (6.3X11) TP	
C452	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP	
C802	CCXB2H222K	C CERA	500V B 2200PF K (TAPPING)	
C803	CCXB2H222K	C CERA	500V B 2200PF K (TAPPING)	
C809	CMXM2A332J	C MYLAR	100V 3300PF J (TP)	
C811	CMXM2A473J	C MYLAR	100V 0.047MF J (TP)	
C812	CEXF1H229V	C ELECTRO	50V RSS 2.2MF (5X11) TP	
C820	CCXB3A471K	C CERA	1KV B 470PF K (T)	
C822	CEXF2A100V	C ELECTRO	100V RSS 10MF (6.3X11) TP	
C825	CEXF1C101V	C ELECTRO	16V RSS 100MF (6.3X11) TP	
C826	CEXF1H479A	C ELECTRO	50V RSM 4.7MF 4X7	
C827	CEXF1C221V	C ELECTRO	16V RSS 220MF (8X11.5) TP	
C828	CEXF2A100V	C ELECTRO	100V RSS 10MF (6.3X11) TP	
C830	CCXB3A471K	C CERA	1KV B 470PF K (T)	
C831	CCXB3A471K	C CERA	1KV B 470PF K (T)	

LOC	PART CODE	PART NAME	DESCRIPTION	REMARK
C832	CCXB3A471K	C CERA	1KV B 470PF K (T)	
C834	CMXM2A104J	C MYLAR	100V 0.1MF J (TP)	
C835	CEXF1C470V	C ELECTRO	16V RSS 47MF (5X11) TP	
C836	CEXF1H479V	C ELECTRO	50V RSS 4.7MF (5X11) TP	
C853	CMXM2A102J	C MYLAR	100V 1000PF J (TP)	
C854	CMXM2A102J	C MYLAR	100V 1000PF J (TP)	
C855	CCXB3A471K	C CERA	1KV B 470PF K (T)	
C857	CMXM2A102J	C MYLAR	100V 1000PF J (TP)	
C858	CMXM2A103J	C MYLAR	100V 0.01MF J (TP)	
C859	CMXM2A102J	C MYLAR	100V 1000PF J (TP)	
F801A	4857415001	CLIP FUSE	PFC5000-0702	
F801B	4857415001	CLIP FUSE	PFC5000-0702	
I806	1KA431L---	IC	KA431L	
L823	58C9430599	COIL CHOKE	AZ-9004Y(94MH)	
L824	58C9430599	COIL CHOKE	AZ-9004Y(94MH)	
L901	5CPX121J--	COIL PEAKING	120UH J (RADIAL)	
Q401	TKTC3207--	TR	KTC3207 (TP)	
Q451	TKTA1266Y-	TR	KTA1266Y (TP)	
Q802	TKTC3198Y-	TR	KTC3198Y	
Q803	TKTC3198Y-	TR	KTC3198Y	
Q804	TKTC3198Y-	TR	KTC3198Y	
Q805	TKTC3198Y-	TR	KTC3198Y	
Q820	TKSA1013Y-	TR	KSA1013Y (TP)	
Q821	TKSA1013Y-	TR	KSA1013Y (TP)	
Q823	TKSA1013Y-	TR	KSA1013Y (TP)	
Q824	TKTC3198Y-	TR	KTC3198Y	
Q825	TKTC3198Y-	TR	KTC3198Y	
Q826	TKTC3198Y-	TR	KTC3198Y	
Q852	TKTC3198Y-	TR	KTC3198Y	
Q853	TKTA1270Y-	TR	KTA1270Y (TP)	
Q901	TKTC3207--	TR	KTC3207 (TP)	
Q902	TKTC3207--	TR	KTC3207 (TP)	
Q903	TKTC3207--	TR	KTC3207 (TP)	
ZZ200	PTPWJAH611	PCB POWER AXIAL AS	DVQ-10H1FCN	
A001	4859808660	PCB UNION	246X246 S1B	
C806	CCZB1H223K	C CERA	HIBK 50V 0.022MF K AXL 52	
C807	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z	
C808	CCZB1H221K	C CERA	50V B 220PF K (AXIAL)	
C810	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z	
C813	CCZB1H222K	C CERA	50V B 2200PF K AXIAL	
C901	CCZB1H271K	C CERA	50V B 270PF K	
C902	CCZB1H271K	C CERA	50V B 270PF K	
C903	CCZB1H271K	C CERA	50V B 270PF K	
D301	D1N4004S--	DIODE	1N4004S	
D302	DUZ33B----	DIODE ZENER	UZ-33B	
D303	DUZ33B----	DIODE ZENER	UZ-33B	
D401	D1N4937G--	DIODE	1N4937G (TAPPING)	
D402	D1N4937G--	DIODE	1N4937G (TAPPING)	
D403	D1N4937G--	DIODE	1N4937G (TAPPING)	
D404	D1N4937G--	DIODE	1N4937G (TAPPING)	
D405	DUZ9R1BM--	DIODE ZENER	UZ-9.1BM	
D406	D1N4937G--	DIODE	1N4937G (TAPPING)	
D451	D1N4937G--	DIODE	1N4937G (TAPPING)	
D452	D1N4148---	DIODE	1N4148 (TAPPING)	

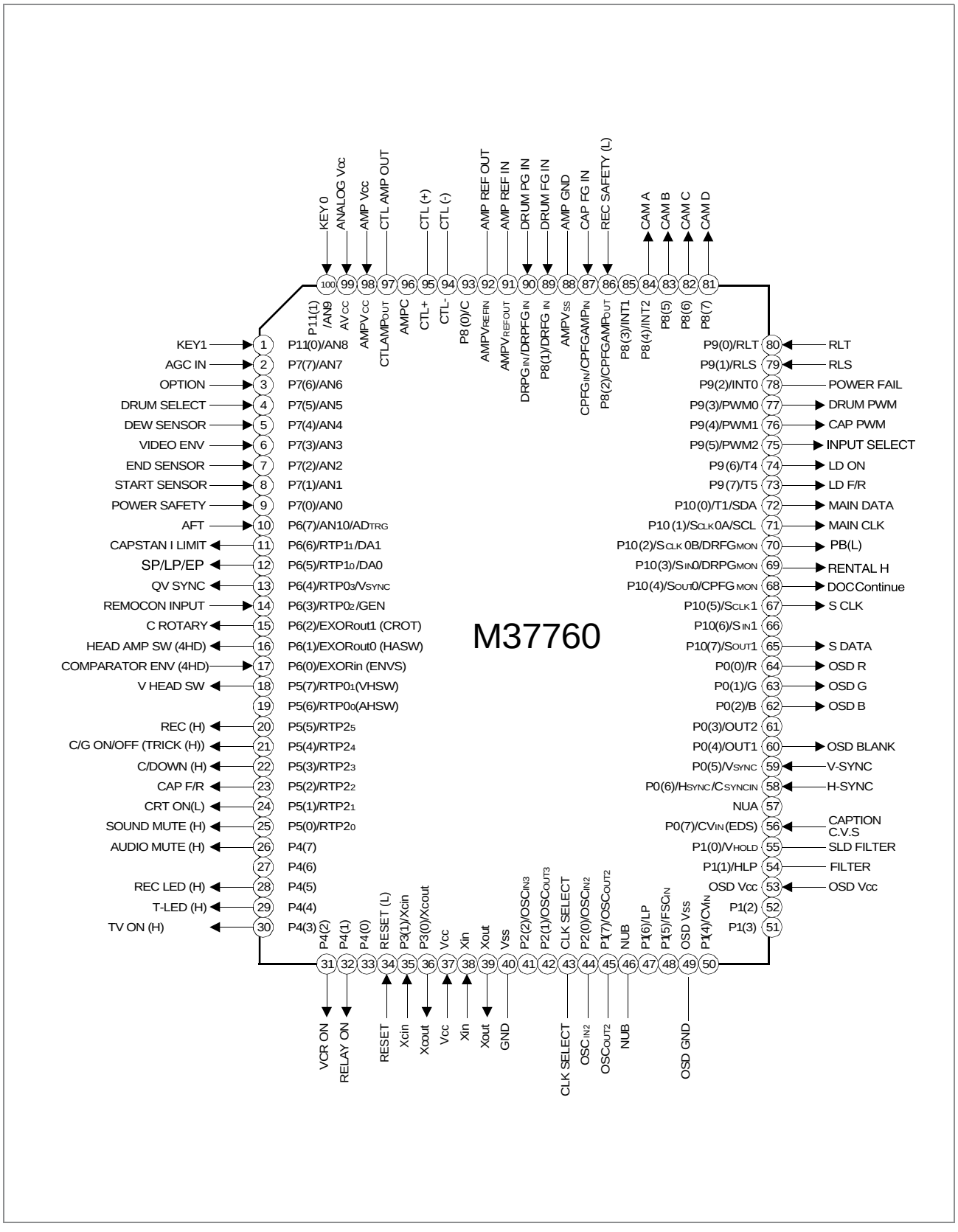
SERVICE PARTS LIST

LOC	PART CODE	PART NAME	DESCRIPTION	REMARK
D453	D1N4937G--	DIODE	1N4937G (TAPPING)	
D801	DLT2A05G--	DIODE	LT2A05G (TP)	⚠
D802	DLT2A05G--	DIODE	LT2A05G (TP)	⚠
D803	DLT2A05G--	DIODE	LT2A05G (TP)	⚠
D804	DLT2A05G--	DIODE	LT2A05G (TP)	⚠
D805	D1N4148---	DIODE	1N4148 (TAPPING)	
D806	D1N4148---	DIODE	1N4148 (TAPPING)	
D807	D1N4148---	DIODE	1N4148 (TAPPING)	
D808	D1N4148---	DIODE	1N4148 (TAPPING)	
D809	D1N4148---	DIODE	1N4148 (TAPPING)	
D810	DUZ6R2BM--	DIODE ZENER	UZ-6.2BM	
D820	DRGP15J---	DIODE	RGP15J	
D821	D1N4937G--	DIODE	1N4937G (TAPPING)	
D823	DRGP15J---	DIODE	RGP15J	
D824	DUZ9R1BM--	DIODE ZENER	UZ-9.1BM	
D825	DRZ1175V1-	DIODE ZENER	RZ1175V1	
D827	DUZ15BM---	DIODE ZENER	UZ-15BM	
D853	DRGP15J---	DIODE	RGP15J	
D854	D1N4937G--	DIODE	1N4937G (TAPPING)	
D856	DRGP15J---	DIODE	RGP15J	
J001	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J002	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J003	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J004	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J005	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J006	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J007	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J008	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J009	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J010	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J011	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J012	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J013	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J014	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J015	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J016	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J017	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J018	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J019	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J020	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J021	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J022	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J023	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J024	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J025	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J026	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J027	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J028	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J029	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J030	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J031	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J032	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
L401	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
L802	5MC0000100	COIL BEAD	HC-3550	

LOC	PART CODE	PART NAME	DESCRIPTION	REMARK
L803	5MC0000100	COIL BEAD	HC-3550	
L820	5MC0000100	COIL BEAD	HC-3550	
L851	5MC0000100	COIL BEAD	HC-3550	
L852	5MC0000100	COIL BEAD	HC-3550	
L853	5MC0000100	COIL BEAD	HC-3550	
L854	5MC0000100	COIL BEAD	HC-3550	
R301	RD-AZ682J-	R CARBON FILM	1/6 6.8K OHM J	
R308	RD-AZ273J-	R CARBON FILM	1/6 27K OHM J	
R309	RD-AZ222J-	R CARBON FILM	1/6 2.2K OHM J	
R310	RD-AZ333J-	R CARBON FILM	1/6 33K OHM J	
R311	RD-AZ113J-	R CARBON FILM	1/6 11K OHM J	
R312	RN-4Z1502F	R METAL FILM	1/4 15K OHM F	
R313	RN-4Z1603F	R METAL FILM	1/4 160K OHM F	
R320	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
R405	RD-AZ153J-	R CARBON FILM	1/6 15K OHM J	
R406	RD-AZ113J-	R CARBON FILM	1/6 11K OHM J	
R408	RD-4Z224J-	R CARBON FILM	1/4 220K OHM J	
R409	RD-4Z472J-	R CARBON FILM	1/4 4.7K OHM J	
R410	RD-2Z751J-	R CARBON FILM	1/2 750 OHM J	
R411	RD-AZ331J-	R CARBON FILM	1/6 330 OHM J	
R412	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R451	RD-4Z224J-	R CARBON FILM	1/4 220K OHM J	
R452	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J	
R454	RD-4Z224J-	R CARBON FILM	1/4 220K OHM J	
R455	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R456	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
R457	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
R803	RD-4Z394J-	R CARBON FILM	1/4 390K OHM J	
R804	RD-4Z394J-	R CARBON FILM	1/4 390K OHM J	
R805	RD-4Z333J-	R CARBON FILM	1/4 33K OHM J	
R806	RD-4Z432J-	R CARBON FILM	1/4 4.3K OHM J	
R808	RD-AZ331J-	R CARBON FILM	1/6 330 OHM J	
R809	RD-AZ330J-	R CARBON FILM	1/6 33 OHM J	
R810	RD-AZ331J-	R CARBON FILM	1/6 330 OHM J	
R811	RD-AZ331J-	R CARBON FILM	1/6 330 OHM J	
R812	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R813	RD-AZ222J-	R CARBON FILM	1/6 2.2K OHM J	
R814	RD-AZ471J-	R CARBON FILM	1/6 470 OHM J	
R815	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R816	RD-AZ560J-	R CARBON FILM	1/6 56 OHM J	
R817	RD-AZ204J-	R CARBON FILM	1/6 200K OHM J	
R818	RD-AZ204J-	R CARBON FILM	1/6 200K OHM J	
R819	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J	
R821	RD-4Z363J-	R CARBON FILM	1/4 36K OHM J	
R822	RD-AZ363J-	R CARBON FILM	1/6 36K OHM J	
R823	RD-AZ363J-	R CARBON FILM	1/6 36K OHM J	
R824	RD-AZ104J-	R CARBON FILM	1/6 100K OHM J	
R825	RD-AZ104J-	R CARBON FILM	1/6 100K OHM J	
R826	RD-AZ392J-	R CARBON FILM	1/6 3.9K OHM J	
R827	RN-AZ2001F	R METAL FILM	1/6 2.0K OHM F	
R828	RD-AZ473J-	R CARBON FILM	1/6 47K OHM J	
R829	RD-AZ304J-	R CARBON FILM	1/6 300K OHM J	
R830	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
R831	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J	

LOC	PART CODE	PART NAME	DESCRIPTION	REMARK
R832	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J	
R833	RN-AZ3600F	R METAL FILM	1/6 360.0 OHM F	
R834	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J	
R835	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J	
R837	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
R838	RN-4Z8202F	R METAL FILM	1/4 82K OHM F	
R839	RN-AZ2402F	R METAL FILM	1/6 24.0K OHM F	
R840	RN-4Z3001F	R METAL FILM	1/4 3.0K OHM F	
R851	RD-4Z202J-	R CARBON FILM	1/4 2K OHM J	
R852	RD-AZ229J-	R CARBON FILM	1/6 2.2 OHM J	
R853	RN-AZ4701F	R METAL FILM	1/6 4.7K OHM F	
R854	RN-AZ2402F	R METAL FILM	1/6 24.0K OHM F	
R855	RN-4Z8202F	R METAL FILM	1/4 82K OHM F	
R856	RD-AZ752J-	R CARBON FILM	1/6 7.5K OHM J	
R857	RD-AZ105J-	R CARBON FILM	1/6 1M OHM J	
R858	RD-AZ333J-	R CARBON FILM	1/6 33K OHM J	
R859	RD-AZ303J-	R CARBON FILM	1/6 30K OHM J	
R860	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J	
R861	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J	
R862	RD-AZ151J-	R CARBON FILM	1/6 150 OHM J	
R864	RD-AZ393J-	R CARBON FILM	1/6 39K OHM J	
R865	RD-AZ561J-	R CARBON FILM	1/6 560 OHM J	
R866	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
R889	RC-2Z565KP	R CARBON COMP	1/2 5.6M OHM K	⚠
R902	RD-2Z272J-	R CARBON FILM	1/2 2.7K OHM J	
R903	RD-2Z272J-	R CARBON FILM	1/2 2.7K OHM J	
R904	RD-2Z272J-	R CARBON FILM	1/2 2.7K OHM J	
R908	RD-AZ151J-	R CARBON FILM	1/6 150 OHM J	
R909	RD-AZ151J-	R CARBON FILM	1/6 150 OHM J	
R910	RD-AZ151J-	R CARBON FILM	1/6 150 OHM J	
R911	RD-AZ271J-	R CARBON FILM	1/6 270 OHM J	
R912	RD-AZ271J-	R CARBON FILM	1/6 270 OHM J	
R913	RD-AZ271J-	R CARBON FILM	1/6 270 OHM J	
R914	RD-AZ121J-	R CARBON FILM	1/6 120 OHM J	
R915	RD-AZ121J-	R CARBON FILM	1/6 120 OHM J	
R916	RD-AZ121J-	R CARBON FILM	1/6 120 OHM J	

ICS01
DW37760MCH-EA1(M37760) : IC TIMER / SYSCON / CTL PROCESSOR



1. SYSTEM FEATURE

1) The system for TV/VCR tuning is Frequency Synthesis type.
2) VCR SERVO Controller is interior designed.
3) Closed Caption function is interior designed.
4) V-Chip function is interior designed.
5) On Screen Display function is interior designed.
6) Package : 100PIN QFP
7) Tuner (Pre-scaler) : IIC BUS
   /PLL IC : TAU 6014-S (SIEMENS)
8) REMOCON : The IC of transmission (MITSUBISHI M50560)
9) EEPROM : 24AT08 (IIC BUS)
10) 10-Local Key : A/D input control
    (KEY 0 : REC, REW, PLAY, FF, STOP/EJECT)
    (KEY 1 : POWER, CH UP/DOWN, VOL UP/DOWN)
11) Option S/W : Port A/D input Option check
12) IF/V/C/D IC : LA76845
13) VCR Y/C/A IC : LA71076AM(LA71076SM)
14) DECK MECHANISM : K-50MECHA

2. PIN DESCRIPTION

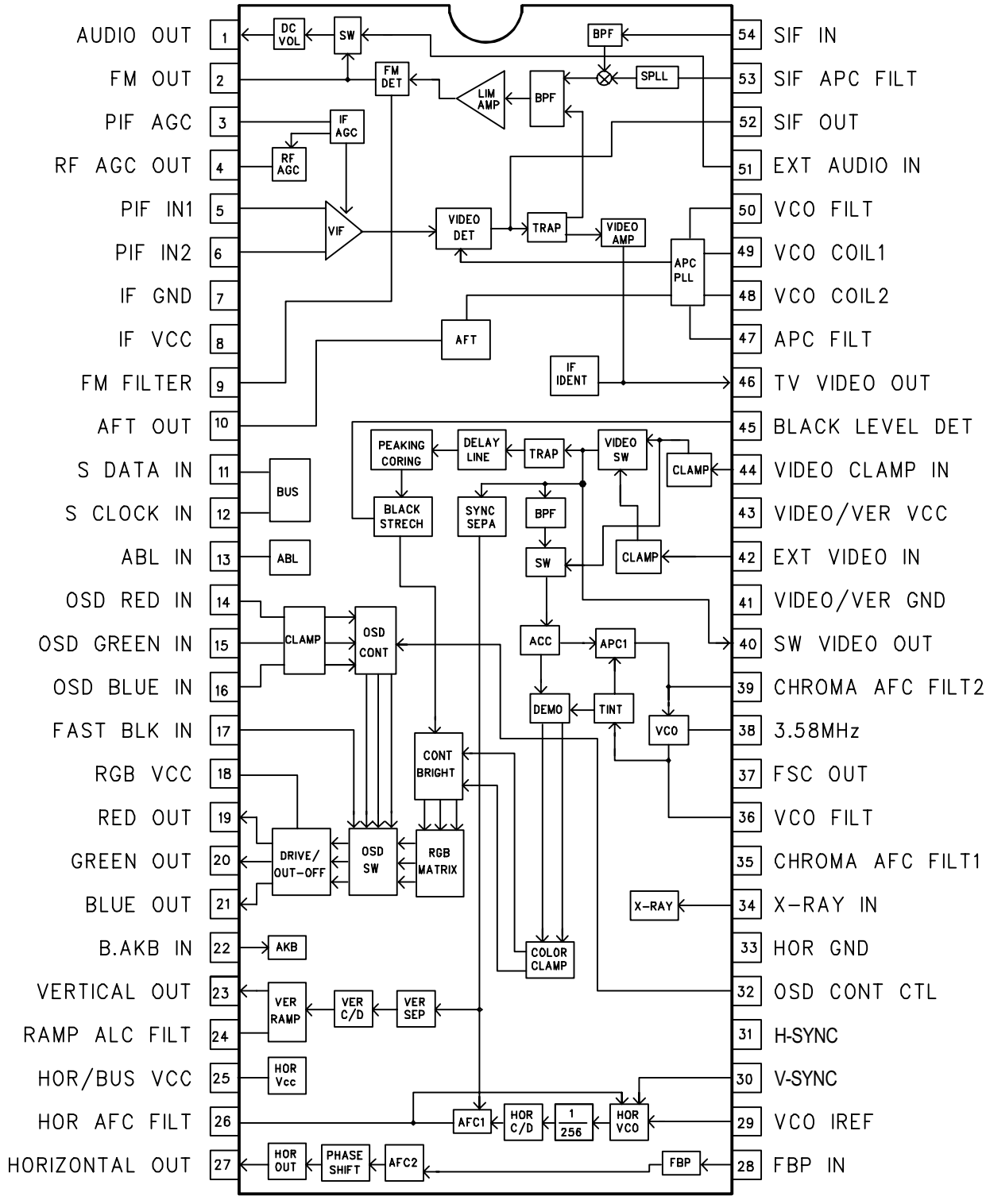
Pin	Terminal	Name	Explanation	Remarks
1	P11(0)	KEY 1 IN	Power, Ch up/down, Vol up/down	
2	P7(7)	AGC IN	Connect this port to AGC of Tuner. Default voltage :3.75V Variable voltage : 3.25V, 3.5V, 3.75V	
3	P7(6)	OPTION	H(5V) : Parental control M(2.5V) : Child lock L(0V) : None	
4	P7(5)	DRUM SELECT	H(5V) : NTSC 4 head L(0V) : NTSC 2 head	
5	P7(4)	DEW SENSOR	DEW SENSOR OPERATION Port 0V : VCR Operation On 0.6V : VCR Operation Off	
6	P7(3)	VIDEO ENVELOPE IN	Connect this port to 93Pin of ICY01. Maximum point search DC ENVE input. Auto tracking restart condition (SP:2-5V, LP/SLP:1.5-5V)	
7	P7(2)	END SENSOR IN	Tape END sensor detect input. H: Tape end.	
8	P7(1)	START SENSOR IN	Tape START sensor detect input. H: Tape start.	
9	P7(0)	POWER SAFETY IN	Not used.	
10	P6(7)	AFT IN	DC voltage that comes from the 10 pin of LA76845	
11	P6(6)	CAPSTAN I LIMIT OUT	Limit the current of CAPSTAN MOTOR Set "L" during PAUSE/STILL	
12	P6(5)	SP/LP/EP	Tape speed control. SP(L)/LP(M)/EP(H)	
13	P6(4)	QV SYNC	When special play, Quasi Vertical SYNC insert V SYNC of C.V.S	Special play: QUE,REV, STILL,SLOW
14	P6(3)	REMOCON INPUT	Remote Controller pulse input	
15	P6(2)	COLOR ROTARY OUT	When color MOD/DEMOD, phase shift pulse	
16	P6(1)	HEAD AMP SW PULSE	4 head option. When special play, EP head switching pulse	
17	P6(0)	COMPARATOR ENV	4 head option.	
18	P5(7)	V HEAD SW PULSE	Video head switching pulse(SP head).	
19	P5(6)	A HEAD SW PULSE	4 head option. Not used	
20	P5(5)	REC H	When recording, set "H"	
21	P5(4)	TRICK H	When special play, set "H" and when recording copy guard ON.	
22	P5(3)	CASSETTE DOWN H	When cassette insert, light up IR led.	
23	P5(2)	CAPSTAN F/R	Switching forward(H) and reverse(L) of CAPSTAN MOTOR	
24	P5(1)	CRT ON L	When CRT off, set "H" during 1sec.	
25	P5(0)	SOUND MUTE H	When stand by TV/VCR, set speaker sound mute.	

Pin	Terminal	Name	Explanation	Remarks
26	P4(7)	AUDIO MUTE H	Connect this port to 95 pin of ICY01. When special play, set audio mute.	
27	P4(6)		Not used	
28	P4(5)	REC LED H	Light up LED(RED) when recording	
29	P4(4)	TIMER REC LED H	Light up LED(GREEN) when ready to programming record.	
30	P4(3)	TV ON H	When CRT on, set "H".	
31	P4(2)	VCR ON H	Recording when CRT off, set "H"	
32	P4(1)	RELAY ON H	Not used.	
33	P4(0)		Not used	
34	RESET	RESET(L)	RESET	
35	P3(1)	Xcin	It uses 32.768KHz Crystal. 35 pin is input terminal for crystal oscillator 36 pin is output terminal for crystal oscillator	
36	P3(0)	Xcout		
37	Vcc	Vcc	Ever +5V(±0.5V). Positive power supply	
38	Xin	Xin	It uses 16MHz Crystal. 38 pin is input terminal for crystal oscillator 39 pin is output terminal for crystal oscillator	
39	Xout	Xout		
40	Vss	Vss	GND Negative power supply.	
41	P2(2)	OSCin3	Not used	
42	P2(1)	OSCout3	Not used	
43		CLK SELECT	When MICOM to start, decide to 32.768KHz or 16MHz. Set "L" : 32.768KHz	
44	P2(0)	OSCin2	It uses LC oscillator. Set the OSD position. 38 pin is input terminal for LC oscillator 39 pin is output terminal for LC oscillator	
45	P1(7)	OSCout2		
46	NUB	NUB	GND	
47	P1(6)	LP H	Not used	
48	P1(5)	FSC IN	Not used	
49	Vcc	OSD Vss	GND	
50	P1(4)	CVS IN	Not used	
51	P1(3)	LECHA	Not used	
52	P1(2)		Not used	
53	Vcc	OSD Vcc	Ever +5V (±0.5V).	
54	P1(1)	FILTER	Filter terminal for PLL.	
55	P1(0)	SLD FILTER	Filter terminal for SYNC separate.	
56	P0(7)	C.V.S IN	For Caption and Parental control signal detect.	
57	NUA	NUA	GND	
58	P0(6)	H SYNC IN	For OSD horizontal SYNC input	
59	P0(5)	V SYNC IN	For OSD vertical SYNC input	

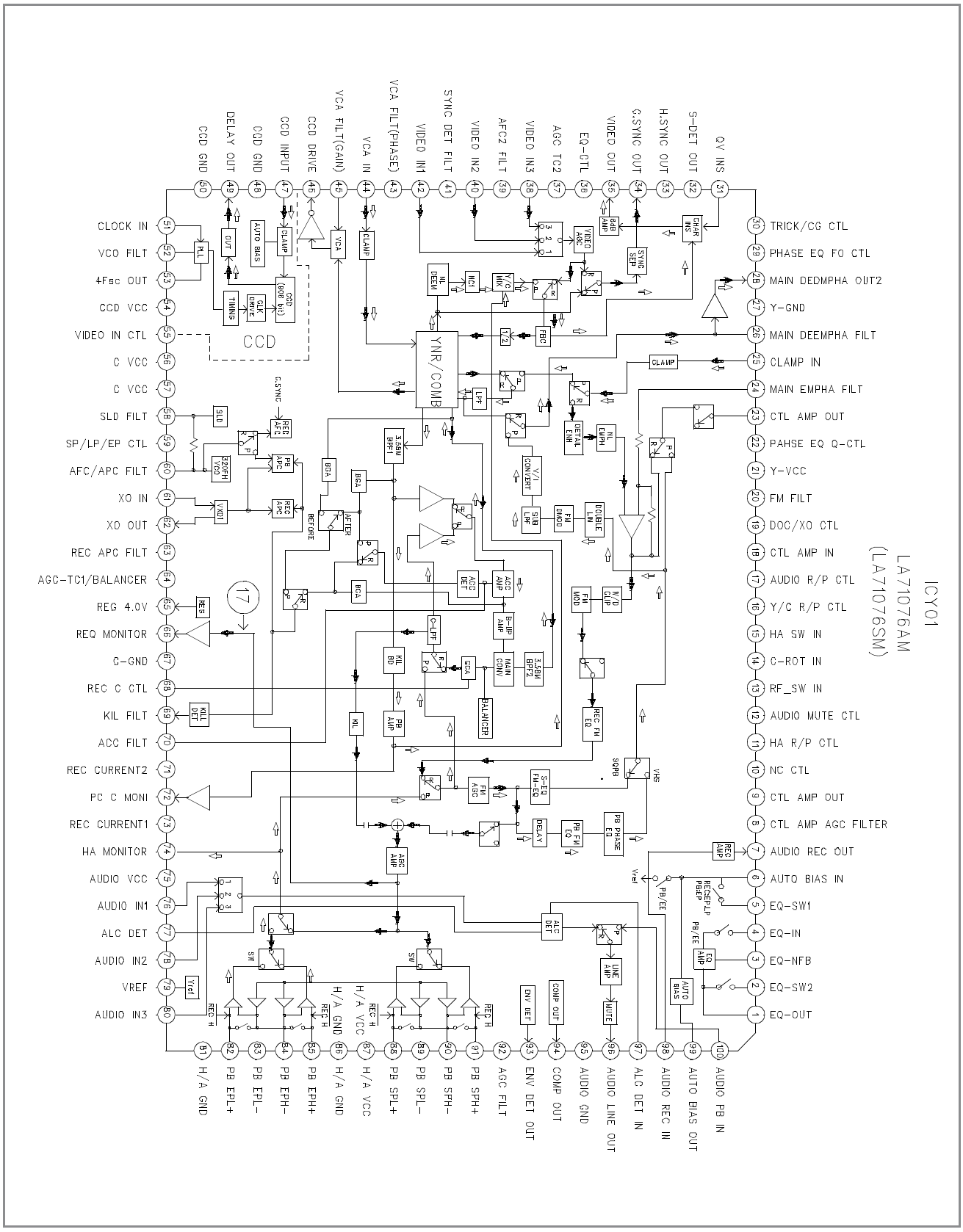
<table>
<tr><th>Pin</th><th>Terminal</th><th>Name</th><th>Explanation</th><th>Remarks</th></tr>
<tr><td>60</td><td>P0(4)</td><td>OSD BLANK OUT</td><td>Fast blanking control signal.
Switch TV image signal and
Caption/OSD image signal.</td><td></td></tr>
<tr><td>61</td><td>P0(3)</td><td></td><td>Not used</td><td></td></tr>
<tr><td>62</td><td>P0(2)</td><td>OSD B OUT</td><td>Blue output terminal of OSD image.</td><td></td></tr>
<tr><td>63</td><td>P0(1)</td><td>OSD G OUT</td><td>Green output terminal of OSD image.</td><td></td></tr>
<tr><td>64</td><td>P0(0)</td><td>OSD R OUT</td><td>Red output terminal of OSD image.</td><td></td></tr>
<tr><td>65</td><td>P10(7)</td><td>S DATA</td><td>IIC data I/O.
Control VCR Y/C, TUNER, EEPROM</td><td></td></tr>
<tr><td>66</td><td>P10(6)</td><td></td><td>Not used</td><td></td></tr>
<tr><td>67</td><td>P10(5)</td><td>S CLOCK</td><td>IIC clock output</td><td></td></tr>
<tr><td>68</td><td>P10(4)</td><td>DOC CONTROL</td><td>When play, set “L”</td><td></td></tr>
<tr><td>69</td><td>P10(3)</td><td>RENTAL H</td><td>If user set rental ON in MENU, set “H”</td><td></td></tr>
<tr><td>70</td><td>P10(2)</td><td>PB L</td><td>When play, set “L”</td><td></td></tr>
<tr><td>71</td><td>P10(1)</td><td>M CLOCK</td><td>IIC clock output</td><td></td></tr>
<tr><td>72</td><td>P10(0)</td><td>M DATA</td><td>IIC data I/O. Control CHROMA IC</td><td></td></tr>
<tr><td>73</td><td>P9(7)</td><td>LD F/R</td><td>Loading Motor Forward(L)/Reverse(H)</td><td></td></tr>
<tr><td>74</td><td>P9(6)</td><td>LD ON</td><td>When operate Loading Motor, set "H"</td><td></td></tr>
<tr><td>75</td><td>P9(5)</td><td>TV/EXT</td><td>Mode change control TV(H)/LINE(L)</td><td></td></tr>
<tr><td>76</td><td>P9(4)</td><td>CAPSTAN PWM</td><td>Control rotate speed of Capstan Motor.
Period of PWM : 23.4KHz</td><td></td></tr>
<tr><td>77</td><td>P9(3)</td><td>DRUM PWM</td><td>Control rotate speed of Drum Motor. Period of PWM : 23.4KHz</td><td></td></tr>
<tr><td>78</td><td>P9(2)</td><td>POWER FAIL</td><td>Input "L", MICOM is Hold mode.
Backup time approx. 30minute.</td><td></td></tr>
<tr><td>79</td><td>P9(1)</td><td>RLS IN</td><td rowspan="2">Supply reel/Take up reel pulse input terminal.
Use to check the Tape remain or
high speed rewind and fast forward.</td><td rowspan="2"></td></tr>
<tr><td>80</td><td>P9(0)</td><td>RLT IN</td></tr>
<tr><td>81</td><td>P8(7)</td><td>CAM D</td><td rowspan="4">CAM detection input terminal.
<table>
<tr><th>MODE</th><th>A</th><th>B</th><th>C</th><th>D</th></tr>
<tr><td>EJECT</td><td>L</td><td>H</td><td>H</td><td>H</td></tr>
<tr><td>STAND BY</td><td>L</td><td>H</td><td>L</td><td>H</td></tr>
<tr><td>REV</td><td>H</td><td>H</td><td>L</td><td>H</td></tr>
<tr><td>STOP</td><td>H</td><td>H</td><td>H</td><td>L</td></tr>
<tr><td>PLAY</td><td>H</td><td>H</td><td>H</td><td>L</td></tr>
<tr><td>FF/REW</td><td>H</td><td>L</td><td>H</td><td>L</td></tr>
</table></td><td rowspan="4"></td></tr>
<tr><td>82</td><td>P8(6)</td><td>CAM C</td></tr>
<tr><td>83</td><td>P8(5)</td><td>CAM B</td></tr>
<tr><td>84</td><td>P8(4)</td><td>CAM A</td></tr>
<tr><td>85</td><td>P8(3)</td><td></td><td>Not used</td><td></td></tr>
<tr><td>86</td><td>P8(2)</td><td>REC SAFETY SW L</td><td>Recordable tape insert, "L" input.
If "H" input when insert cassette tape,
then automatic play.</td><td></td></tr>
<tr><td>87</td><td></td><td>CAP PG IN</td><td>Capstan Pulse Generator signal input.
Feed back Capstan rotation speed.</td><td></td></tr>
<tr><td>88</td><td>Vss</td><td>AMPVss</td><td>GND</td><td></td></tr>
</table>

Pin	Terminal	Name	Explanation	Remarks
89	P8(1)	DRUM FG IN	Drum Frequency Generator signal input. Feed back Drum rotation speed.	
90		DRUM PG IN	Drum Pulse Generator signal input. Feed back Drum rotation phase.	
91		AMP REF IN	Control pulse AMP reference input terminal.	
92		AMP REF OUT	Control pulse AMP reference output terminal.	
93	P8(0)	C	AMP filter.	
94		CTL-	Input control pulse when playing.	
95		CTL+	Output control pulse when recording.	
96		AMP C	AMP condenser.	
97		CTL AMP OUT	Check Control pulse.	
98	Vcc	AMP Vcc	Ever +5V (±0.5V).	
99	Vcc	ANALOG Vcc	Ever +5V (±0.5V).	
100	P11(1)	KEY 0 IN	REC, REW, PLAY, FF, STOP/EJECT	

IC501
LA76845 : IC VIDEO PROCESSOR

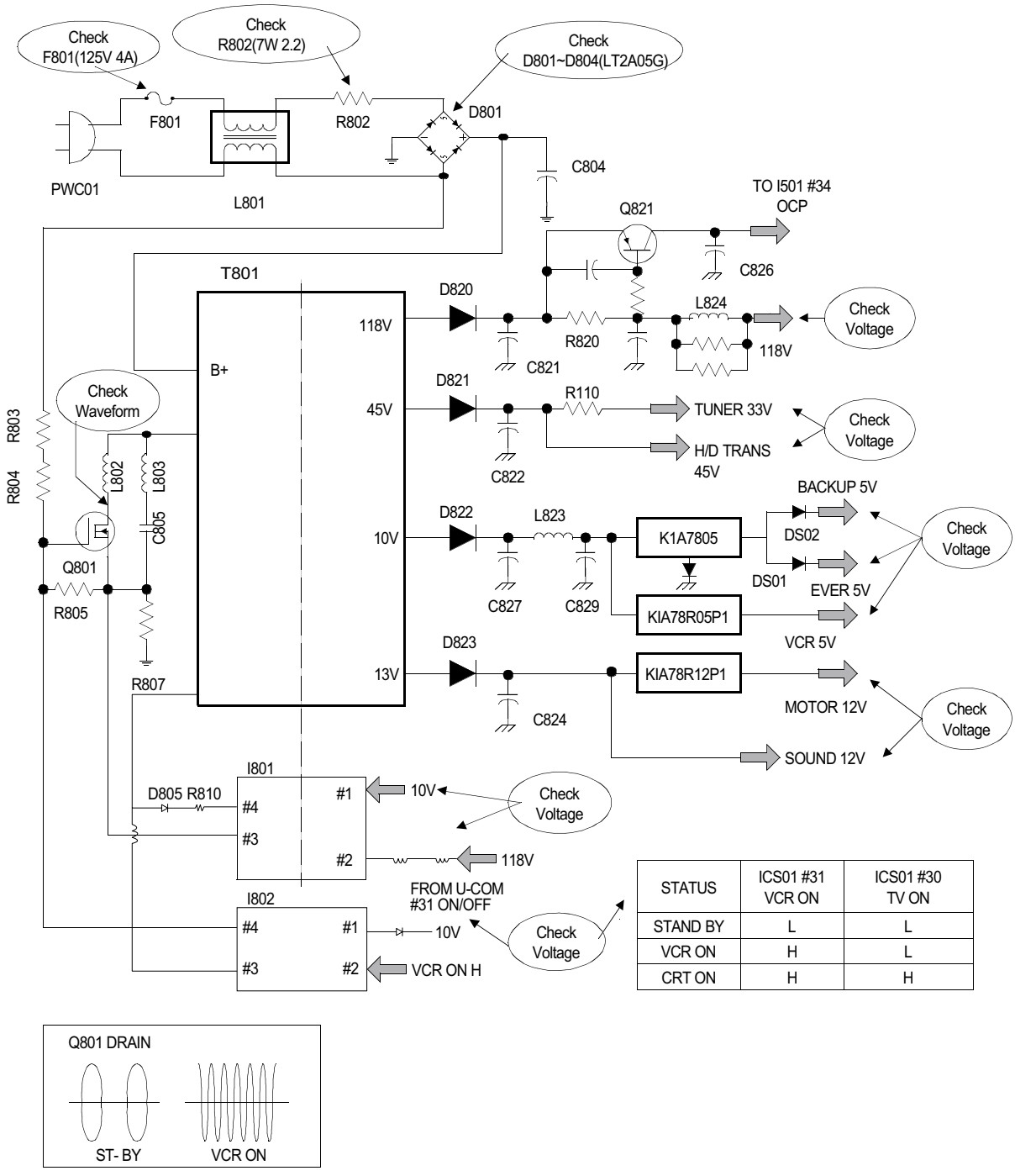


ICY01
LA71076M : IC VCR Y/C & AUDIO PROCESSOR



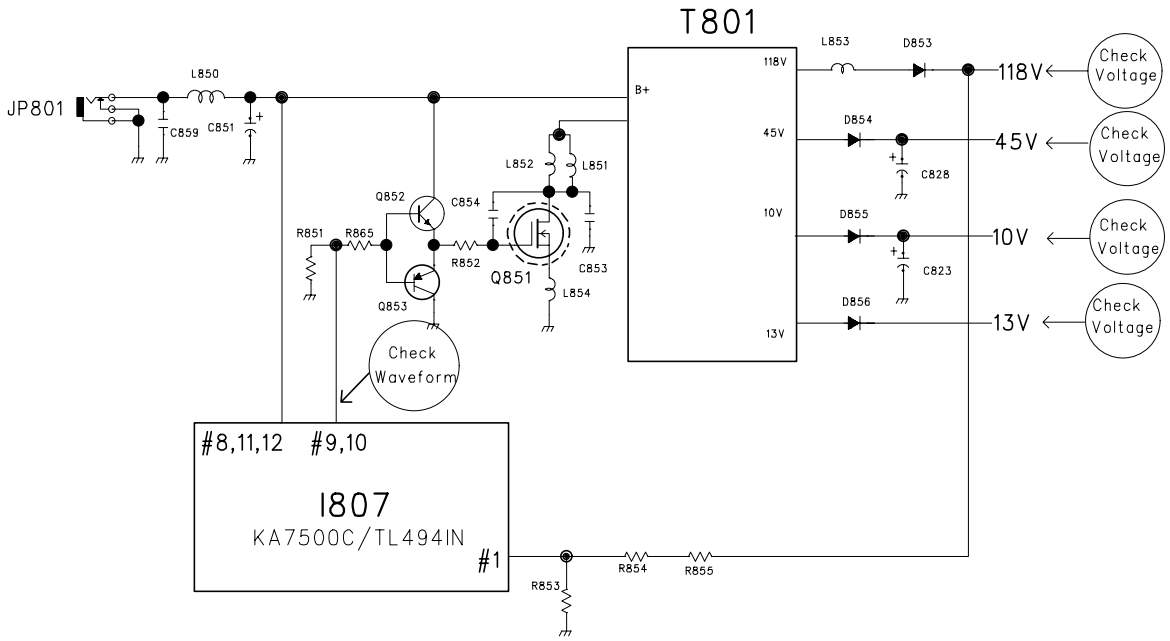
1. NO POWER

1-1) AC NO POWER



STATUS	ICS01 #31 VCR ON	ICS01 #30 TV ON
STAND BY	L	L
VCR ON	H	L
CRT ON	H	H

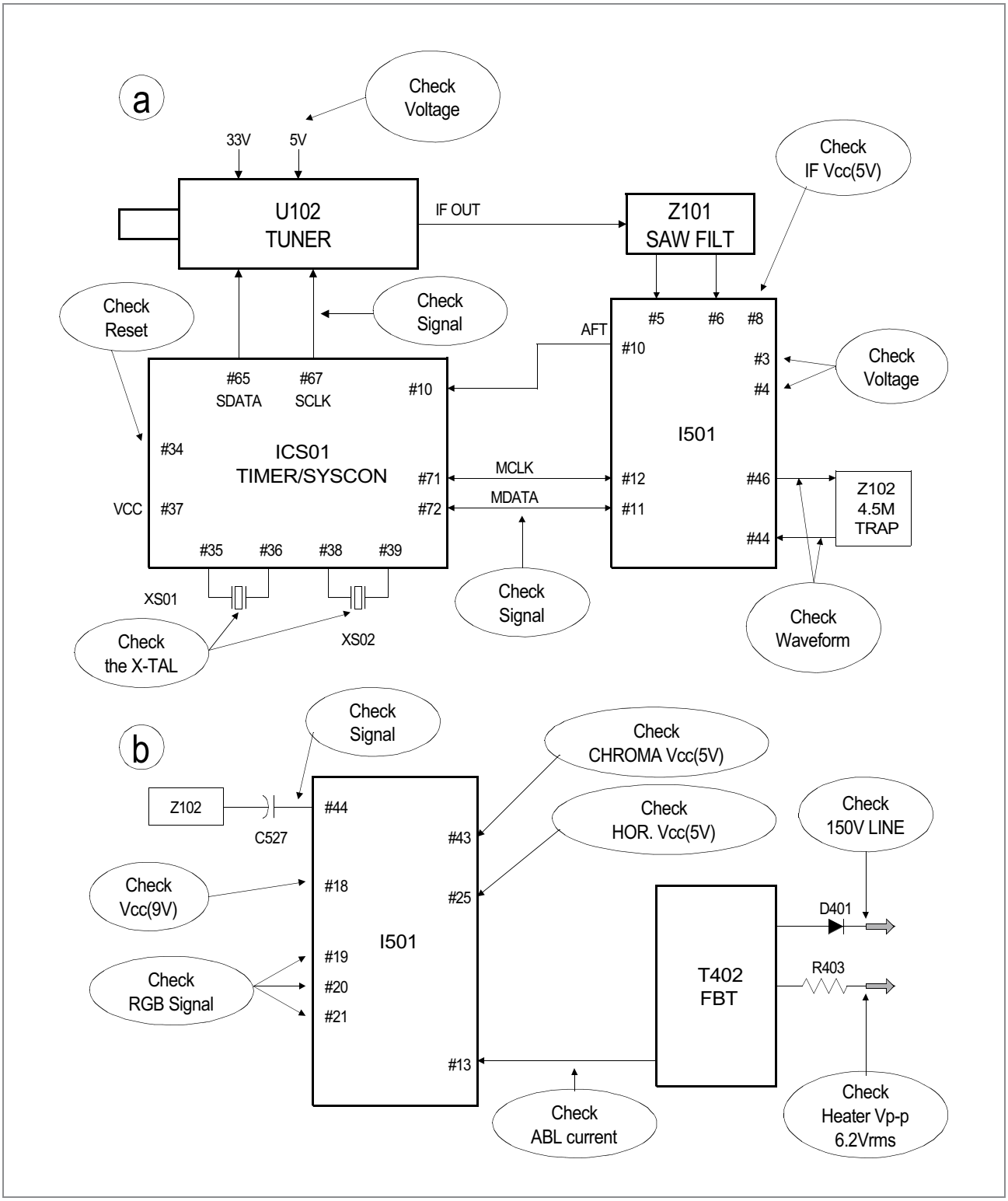
1-2) DC NO POWER



2. TV PART

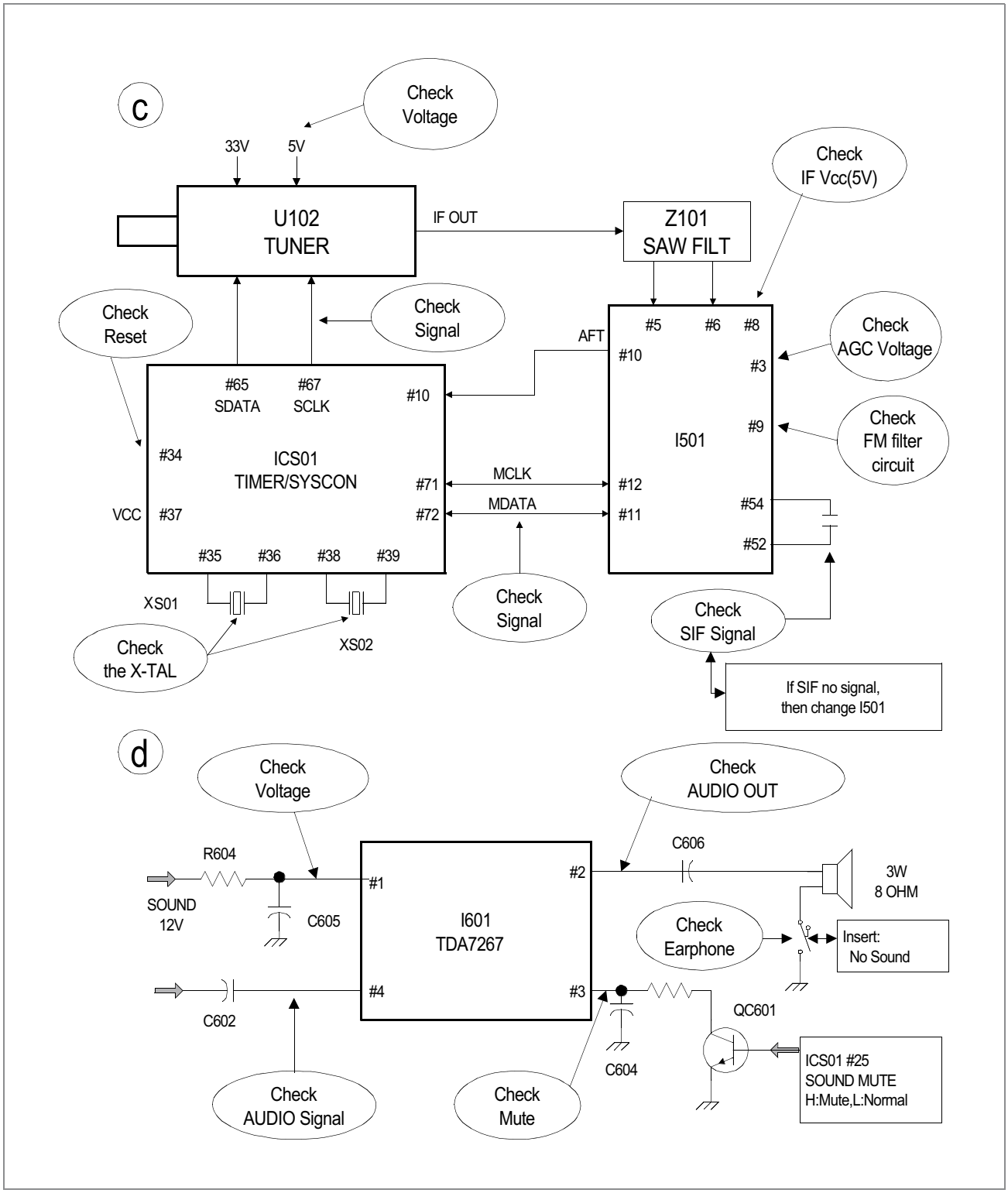
2-1) NO PICTURE

Check the waveform of I501 #46	NG : GO to the figure ⓐ
	OK : GO to the figure ⓑ



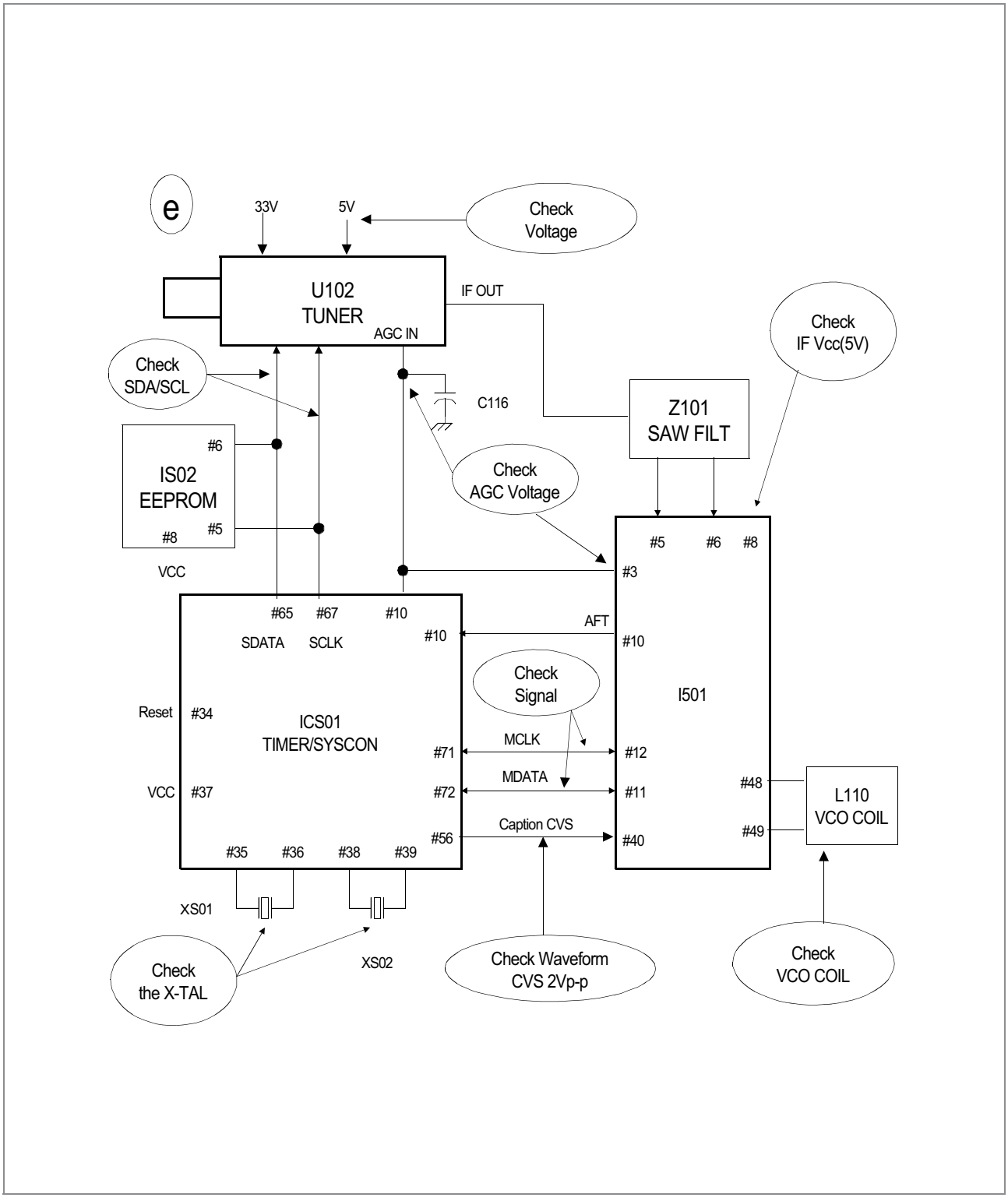
2-2) NO SOUND

Check the waveform of I501 #1	NG : GO to the figure ⓒ
	OK : GO to the figure ⓓ

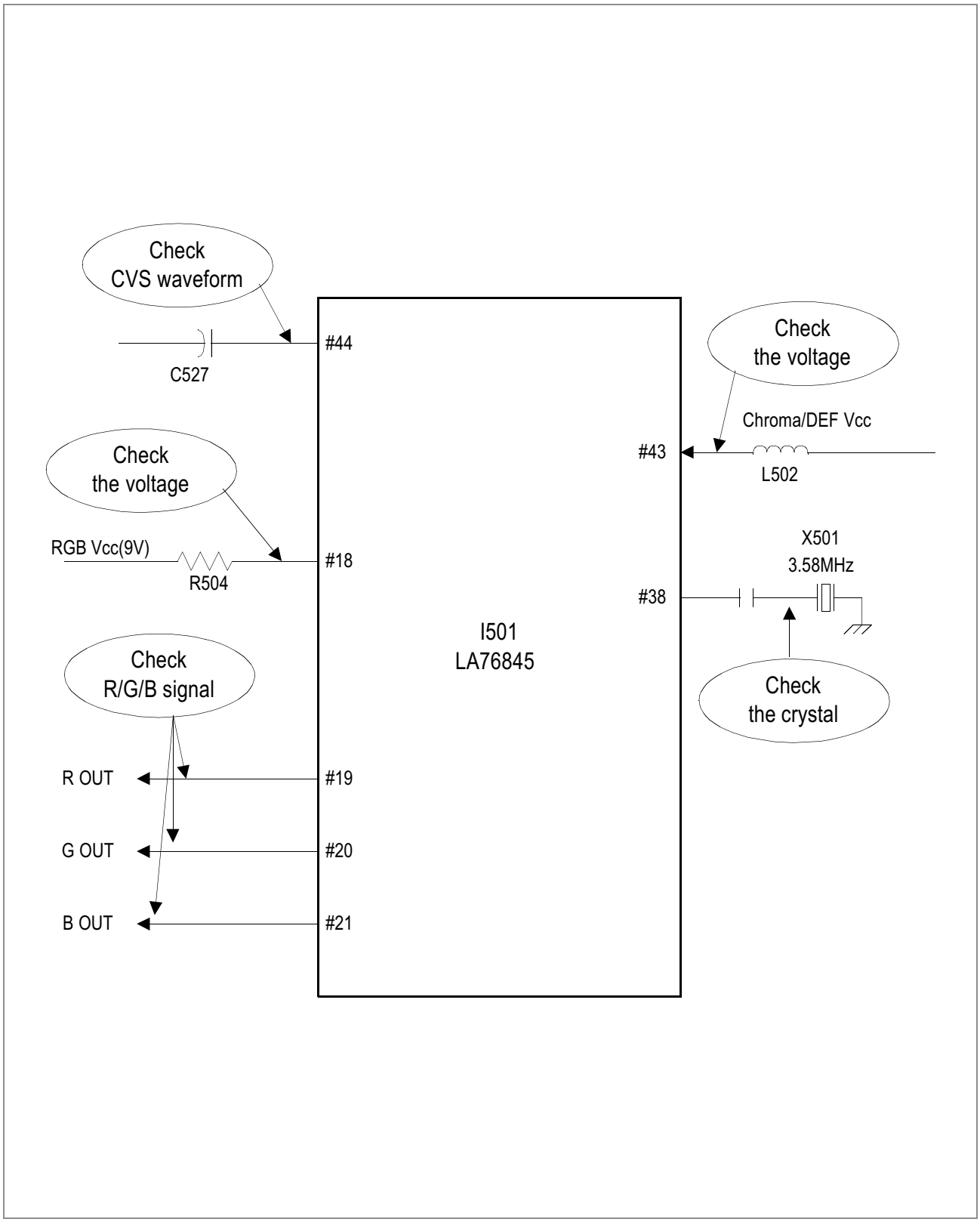


2-3) CHANNEL DON'T STOP

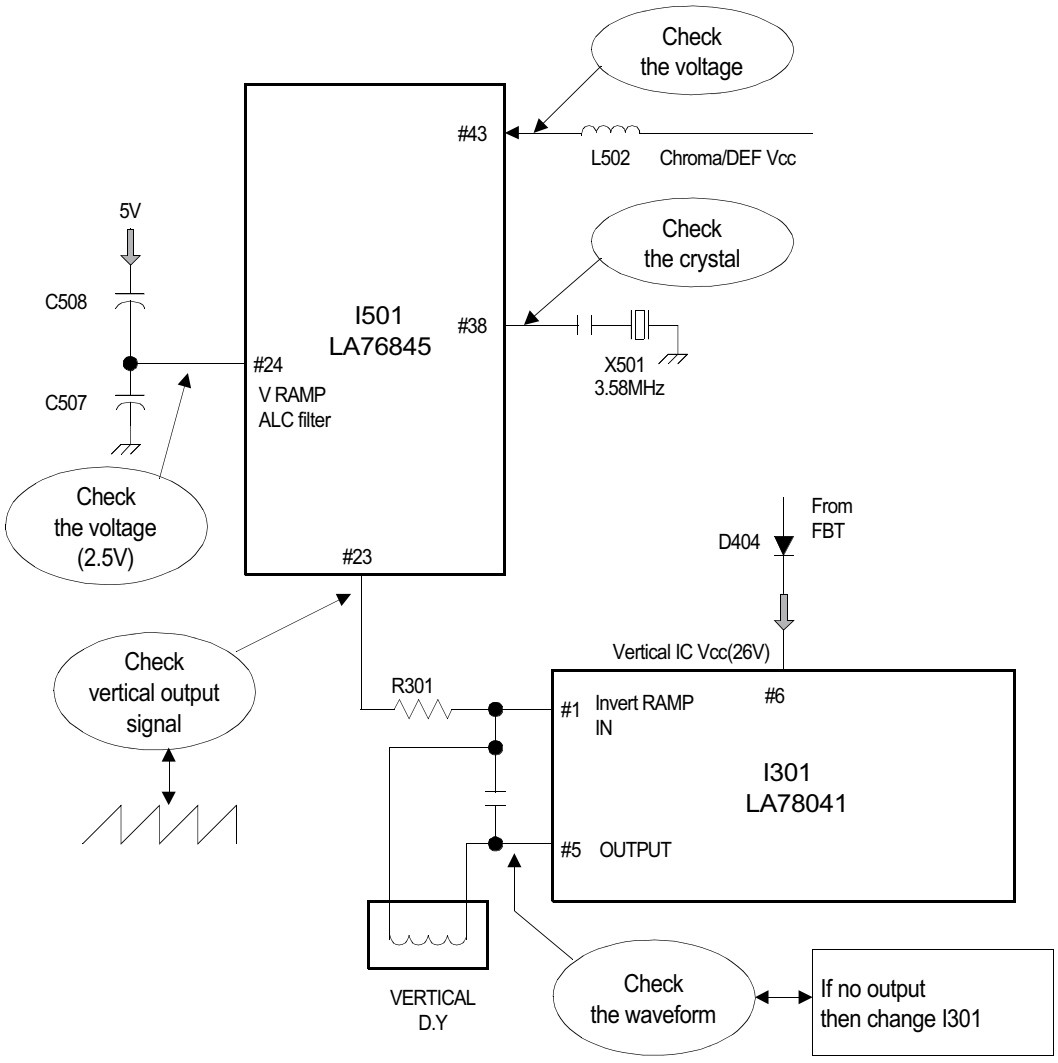
Check the input signal conditions.	NG : Loss of signal or weak signal
	OK : GO to the figure ⓔ



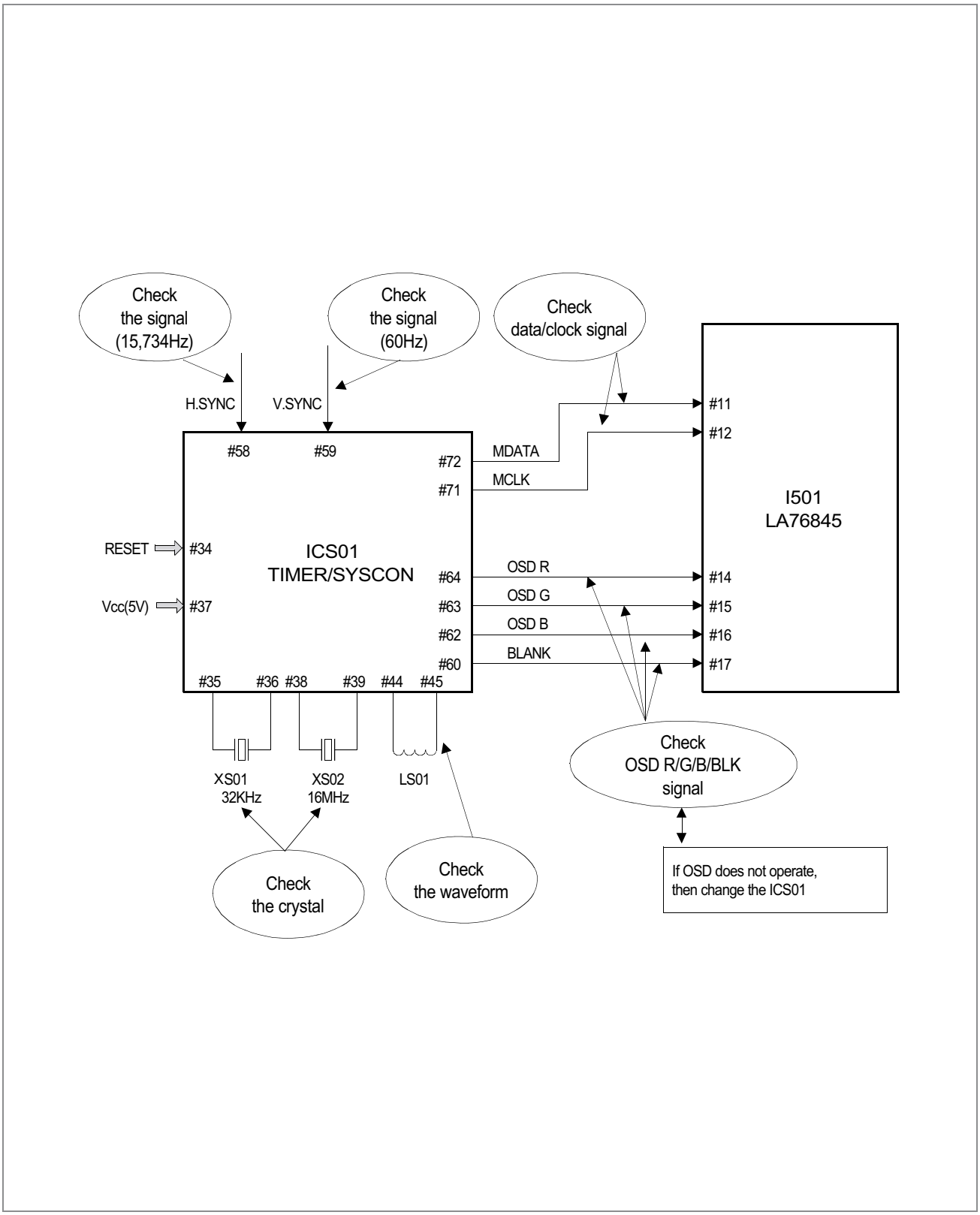
2-4) NO COLOR


Check
CVS waveform
C527
#44
Check
the voltage
Chroma/DEF Vcc
#43
L502
Check
the voltage
RGB Vcc(9V)
R504
#18
X501
3.58MHz
#38
I501
LA76845
Check
R/G/B signal
Check
the crystal
R OUT
#19
G OUT
#20
B OUT
#21

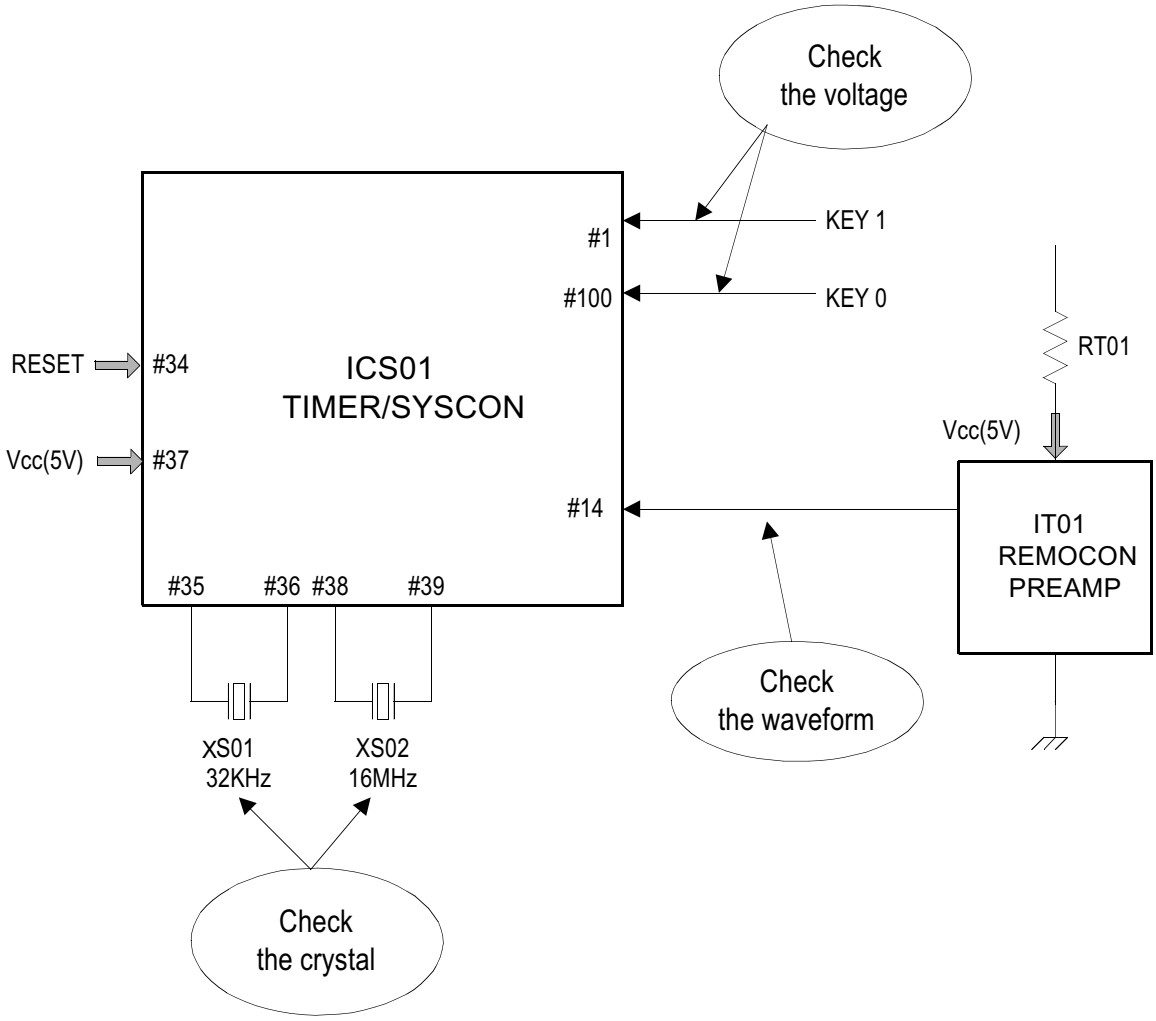
2-5) NO VERTICAL DEFLECTION



2-6) NO ON-SCREEN DISPLAY



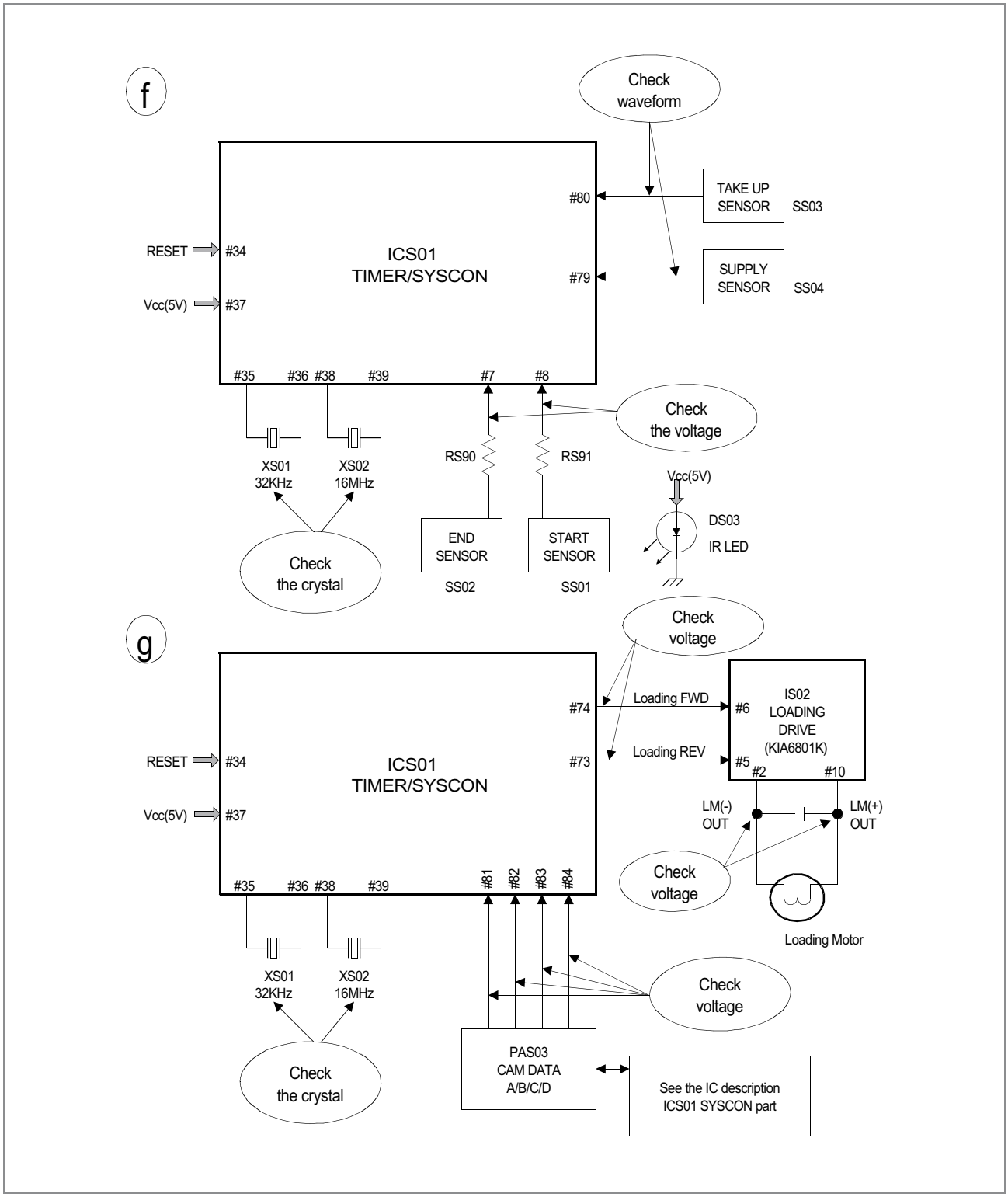
2-7) REMOTE CONTROL DOES NOT OPERATE



3. VCR PART

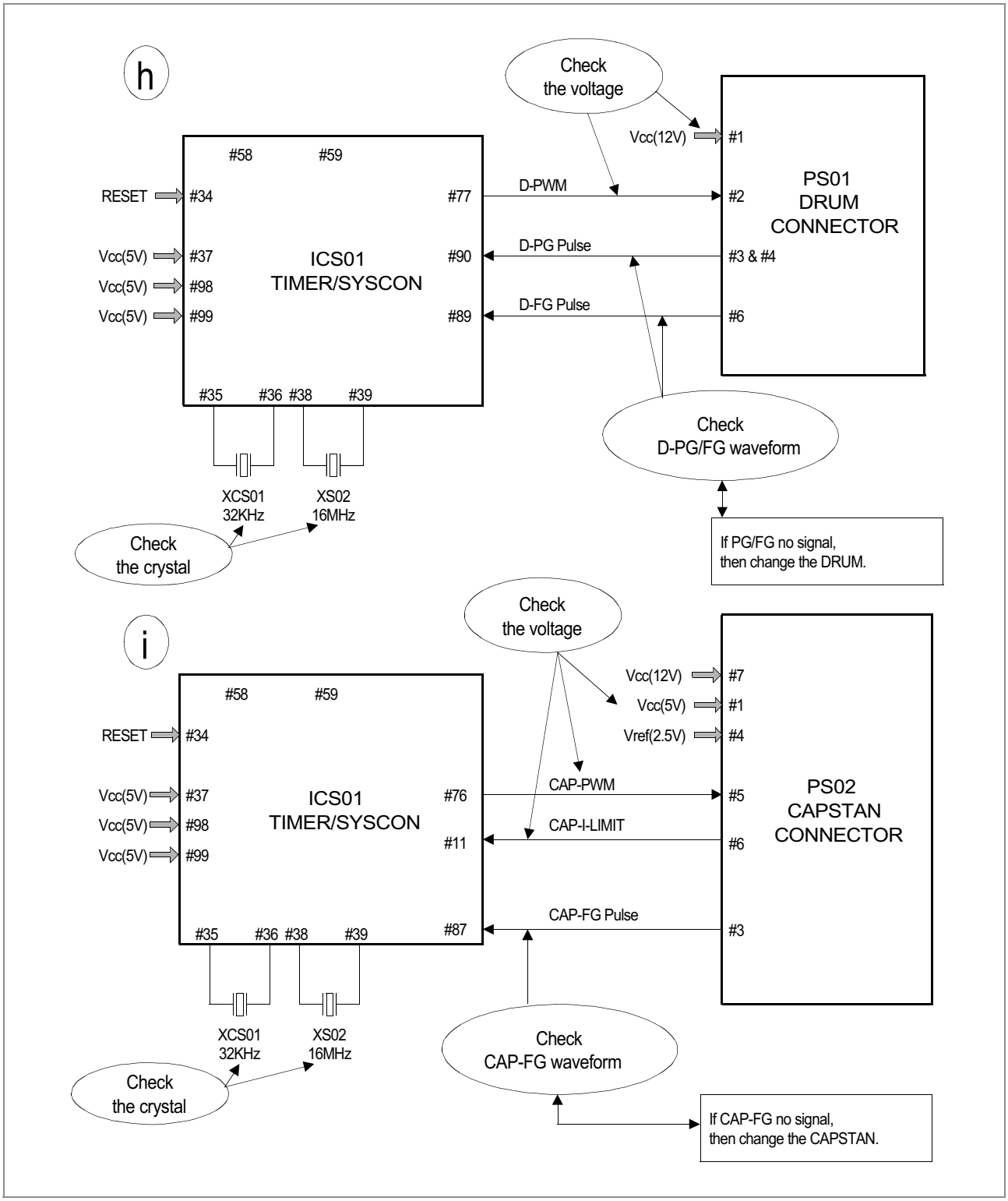
3-1) NO LOADING

Check the loading conditions (VHS TAPE)	EJECT : GO to the figure ⓕ
	UNLOADING : GO to the figure ⓖ



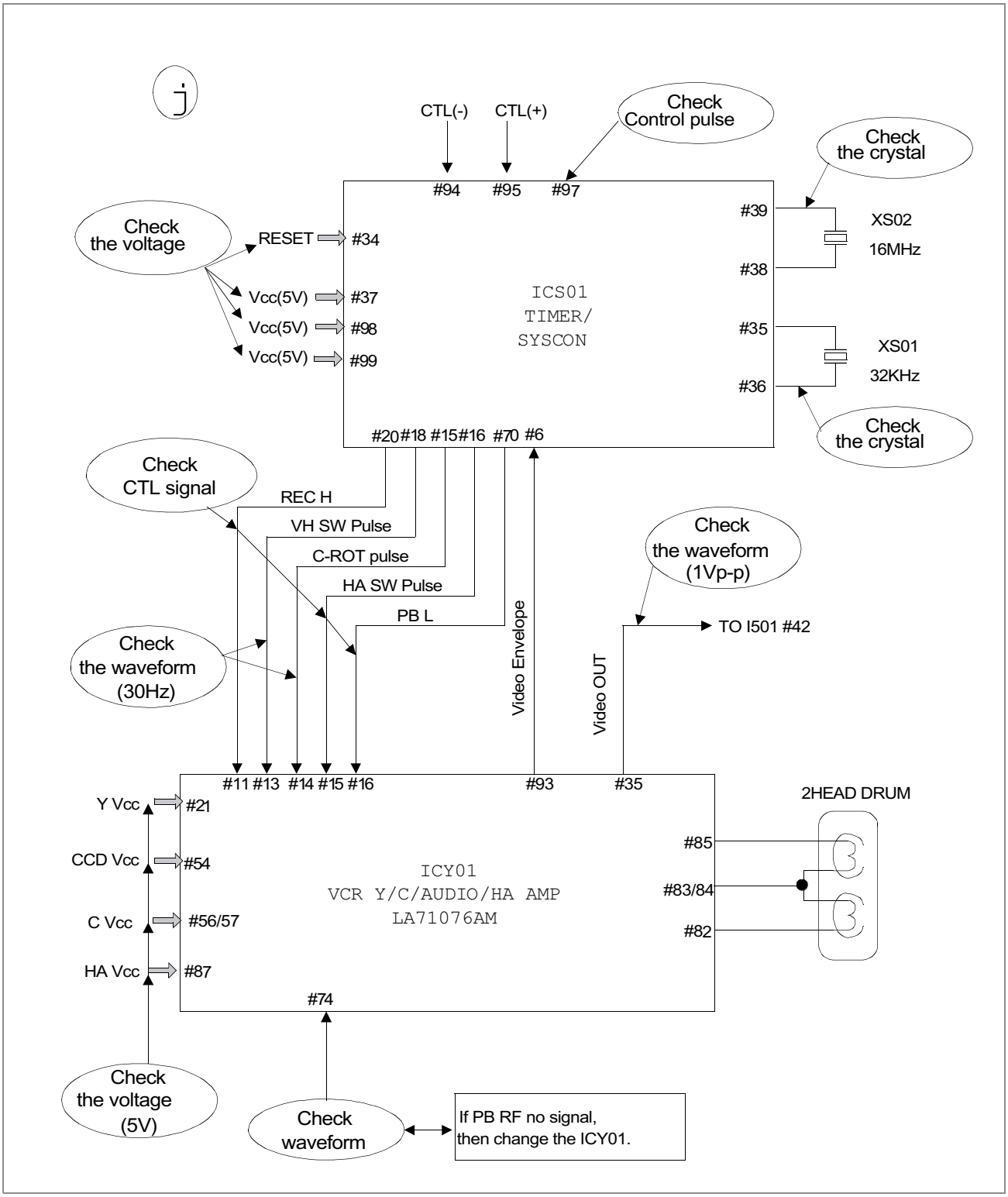
3-2) NO ROTATING

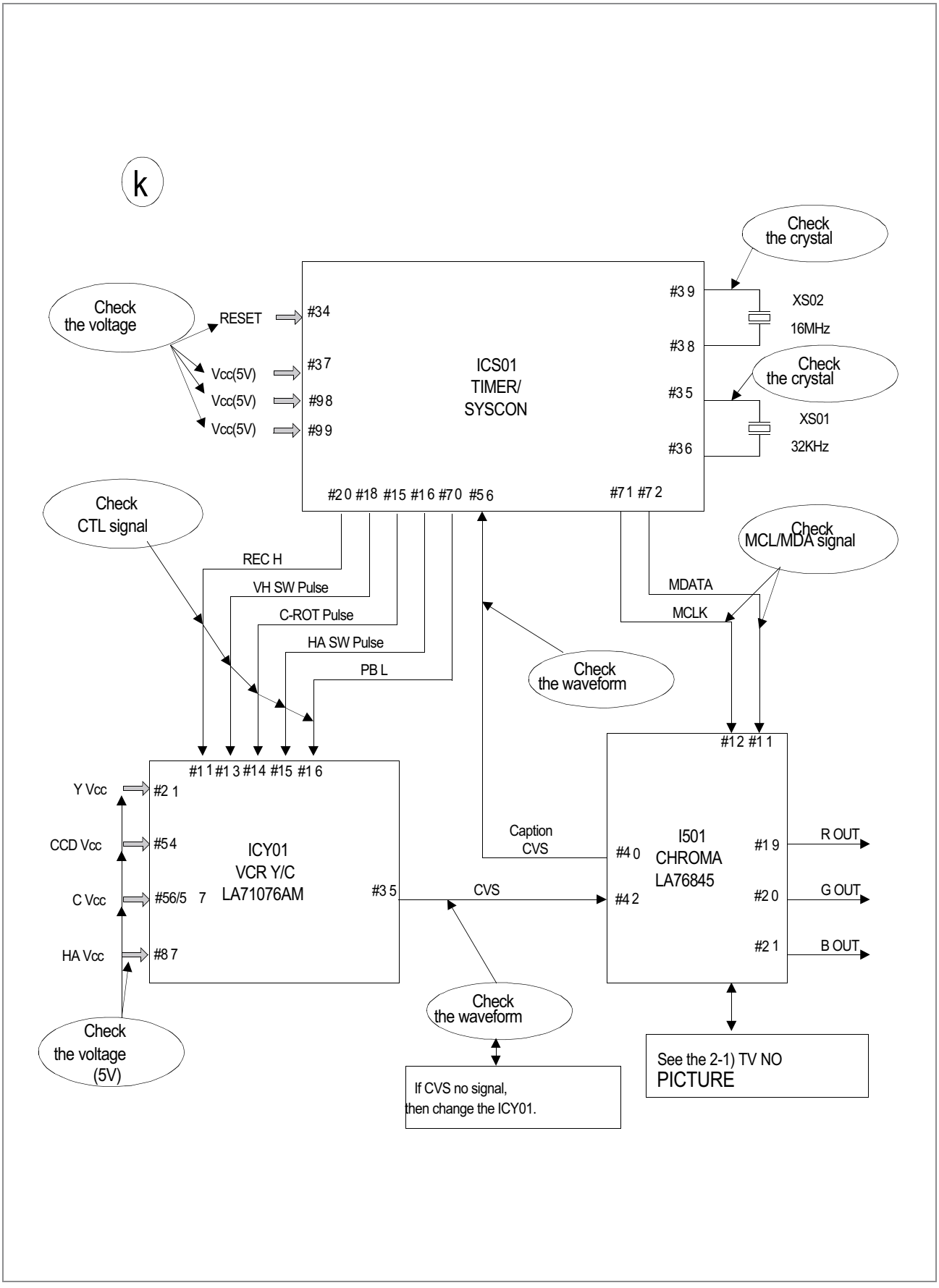
Check the Rotating	DRUM : GO to the figure ⓗ
	CAPSTAN : GO to the figure ⓘ



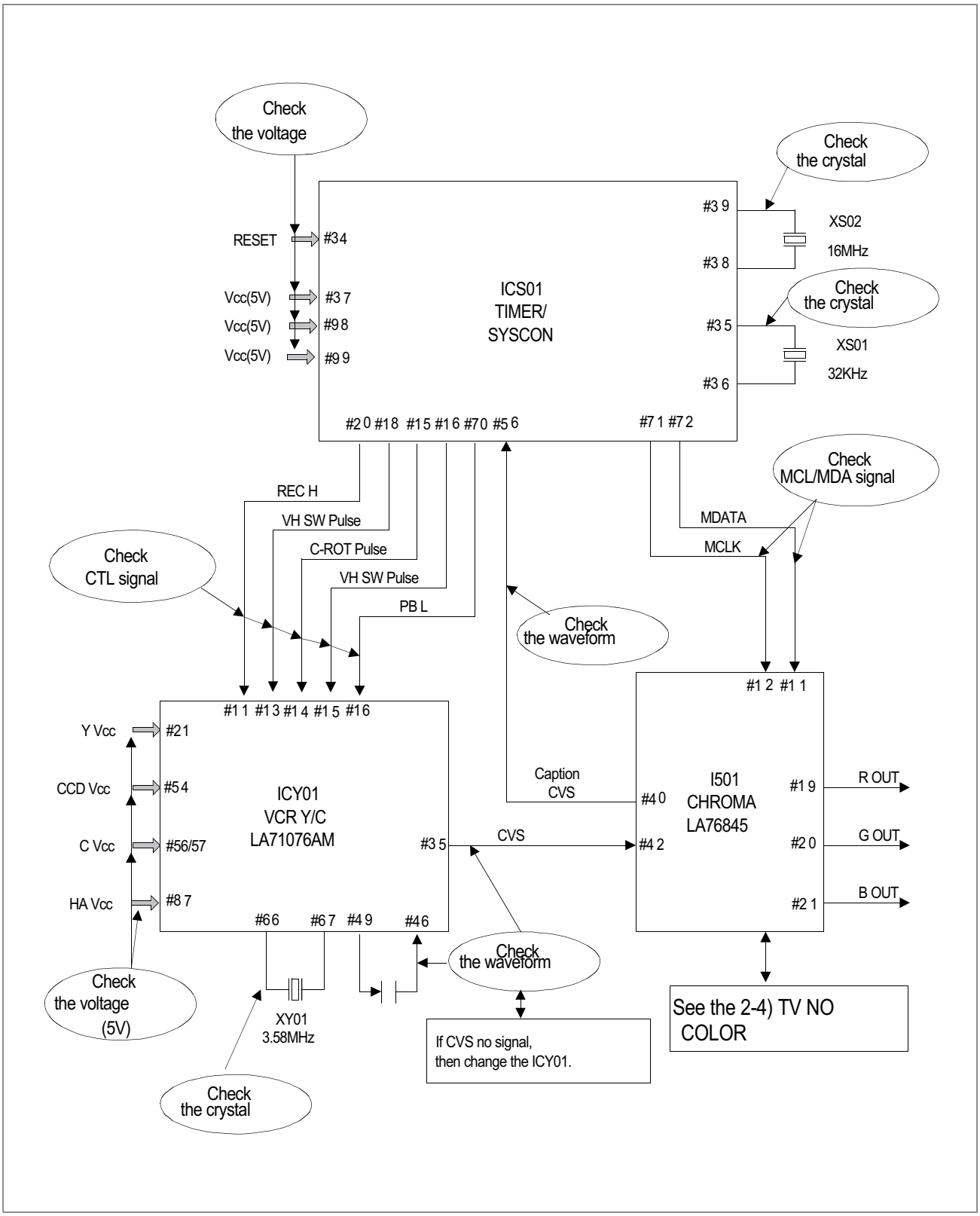
3-3) NO PICTURE PLAYBACK

Check the waveform of ICY01 #27	NG : GO to the figure ⓙ
	OK : GO to the figure ⓚ

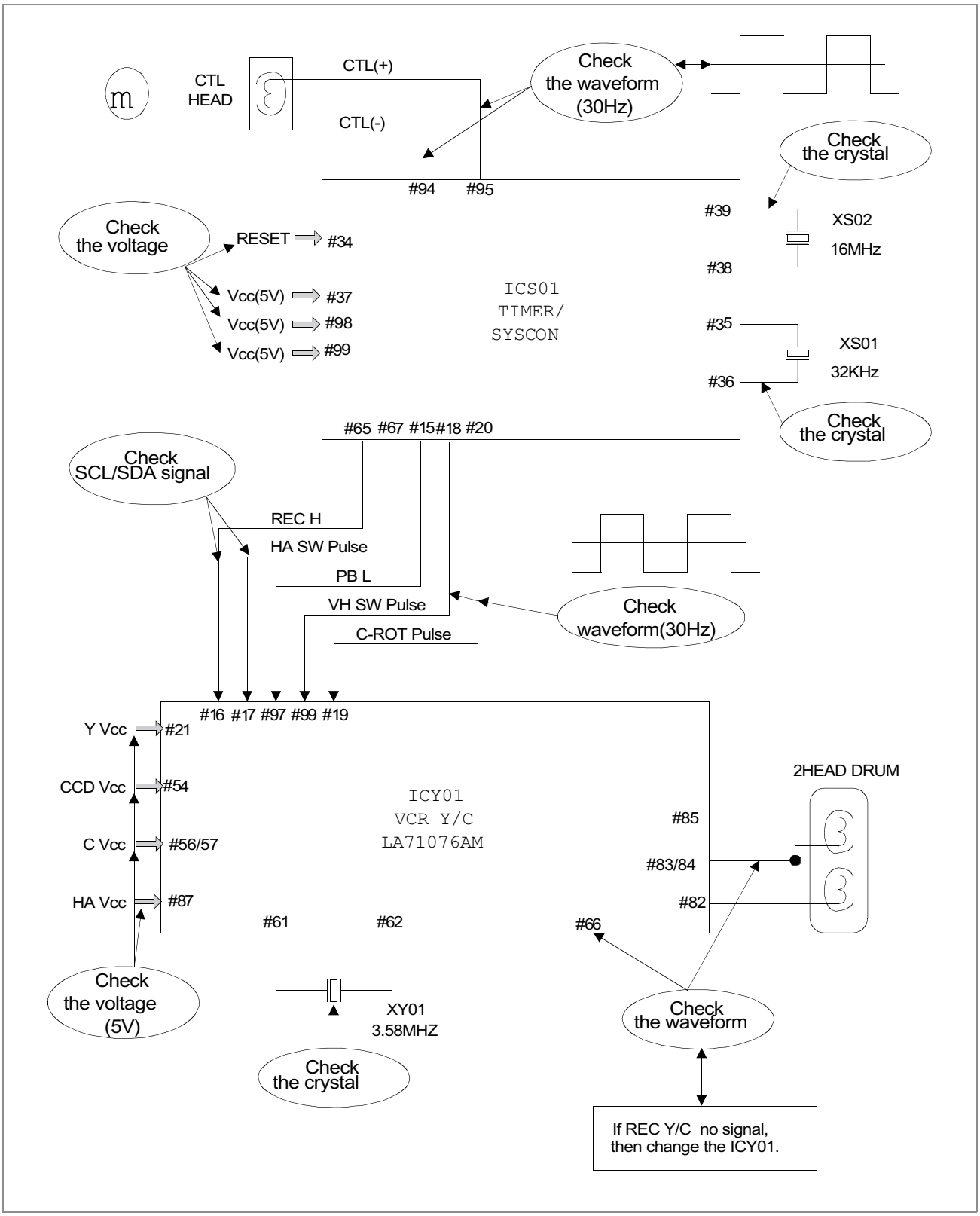



k
Check the crystal
Check the voltage
RESET
#34
Vcc(5V)
#37
Vcc(5V)
#98
Vcc(5V)
#99
ICS01
TIMER/
SYSCON
#39
#38
#35
#36
XS02
16MHz
Check the crystal
XS01
32KHz
#20 #18 #15 #16 #70 #56
#71 #72
Check CTL signal
Check MCL/MDA signal
REC H
VH SW Pulse
C-ROT Pulse
HA SW Pulse
PB L
MDATA
MCLK
Check the waveform
#12 #11
#11 #13 #14 #15 #16
Y Vcc
#21
CCD Vcc
#54
C Vcc
#56/57
HA Vcc
#87
ICY01
VCR Y/C
LA71076AM
#35
Caption CVS
CVS
I501
CHROMA
LA76845
#40
#42
#19
#20
#21
R OUT
G OUT
B OUT
Check the waveform
Check the voltage (5V)
If CVS no signal, then change the ICY01.
See the 2-1) TV NO PICTURE

3-4) NO COLOR PLAYBACK

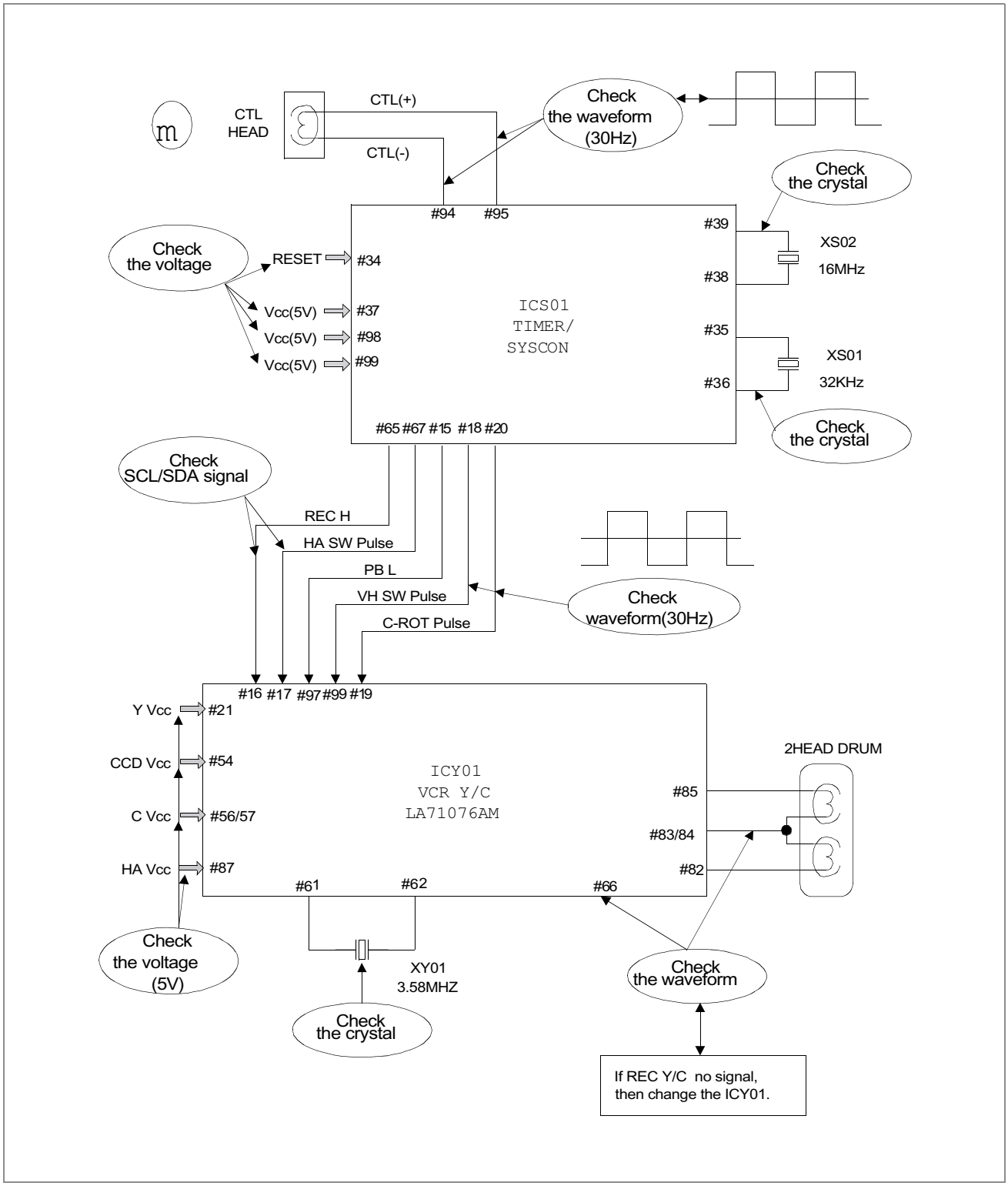


3-5) NO SOUND PLAYBACK



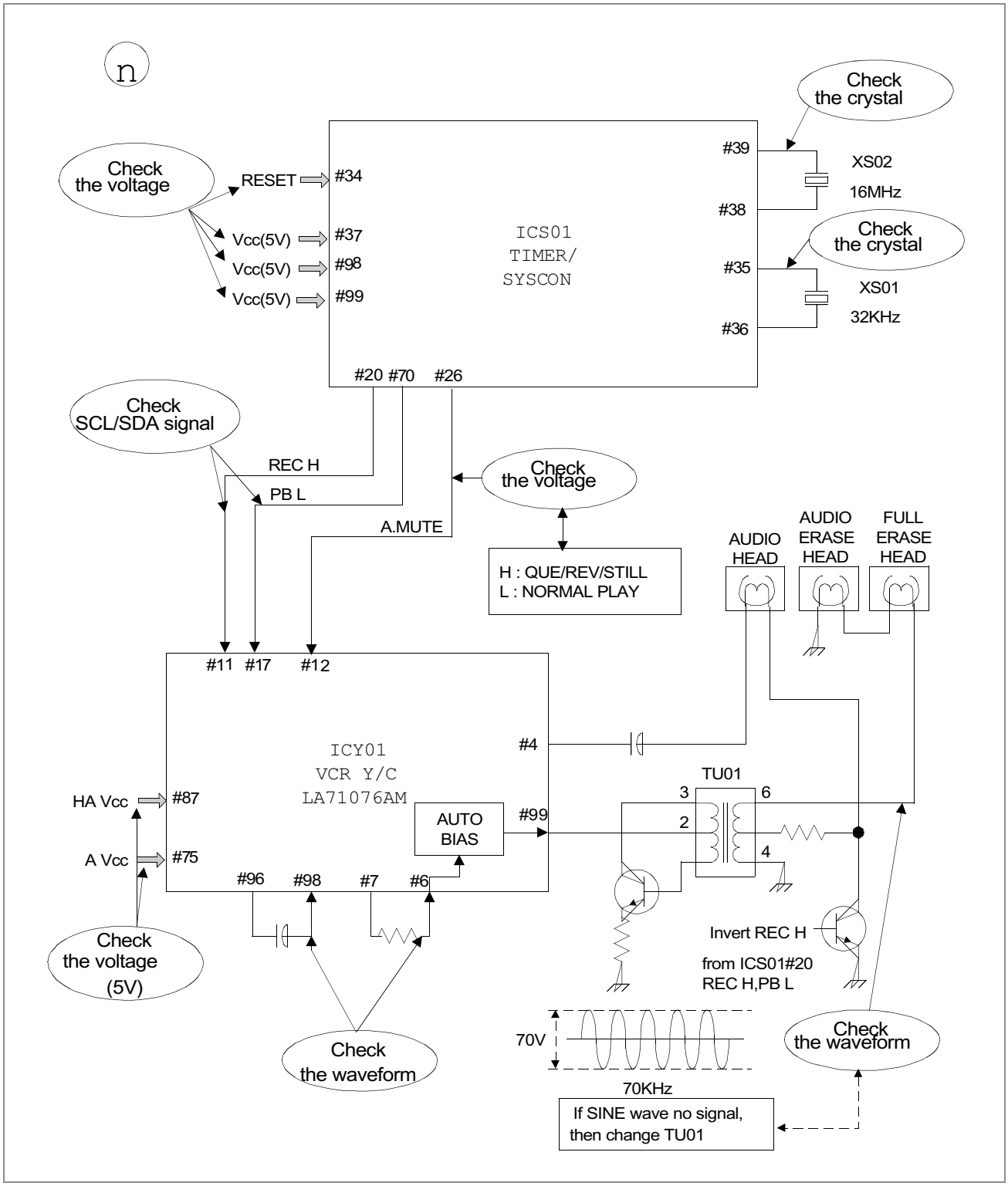
3-6) NO RECORD PICTURE

Check the waveform of ICY01 #40	NG : GO to the figure ②-① (TV PART)
	OK : GO to the figure ⓜ

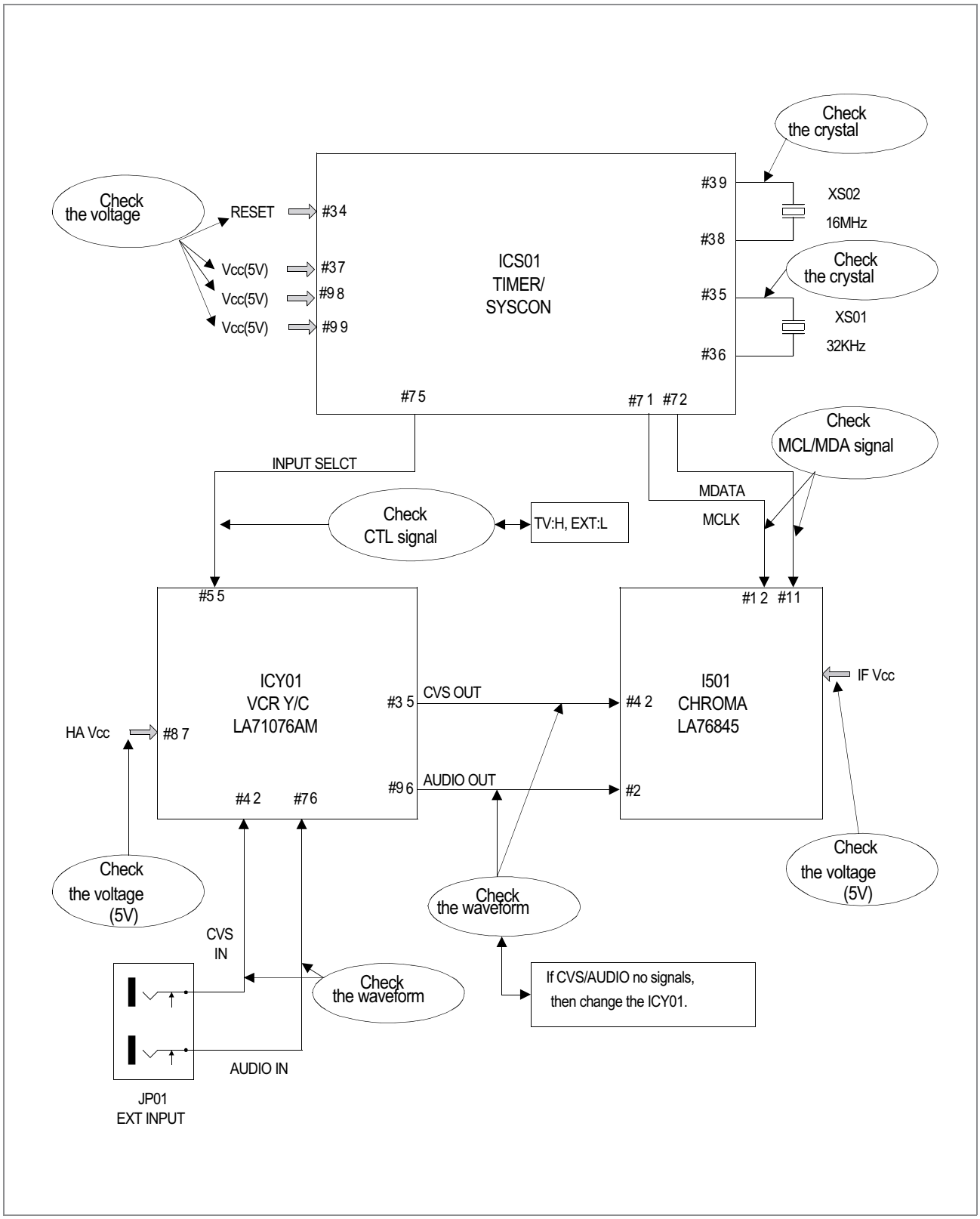


3-7) NO RECORD SOUND

Check the waveform of ICY01 #74	NG : GO to the figure (2-2)(TV PART)
	OK : GO to the figure (n)



3-8) NO EXTERNAL VIDEO / AUDIO



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